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MILITARY HANDBOOK

WASTE DISPOSAL METHODS FOR

MILITARY PACKAGING MATERIALS



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**DEPARTMENT OF DEFENSE
WASHINGTON, DC 20301**

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WASTE DISPOSAL METHODS FOR MILITARY PACKAGING MATERIALS

1. This standardization handbook is a revised version of Technical Report 75-33-FEL, dated December 1974, which was developed by Booz-Allen Applied Research, Bethesda, Maryland, under contractual agreement with the US Army Natick Research and Development Command, Natick, Massachusetts, in accordance with established procedures.
2. This publication was approved in 29 September 1976 for printing and inclusion in the military standardization handbook series. It contains basic information on packaging materials. It also provides valuable information and guidance to solid waste managers of military bases and depots by ranking the methods of disposal of packaging wastes.
3. Every effort has been made to reflect the latest information on the disposal of packaging materials used by the military. It is intended to review this handbook periodically to insure its completeness and currency. Users of this document are encouraged to report any errors discovered and any recommendations for changes or inclusions to the US Army Natick Research and Development Command (DRXNM-TDG), Natick, Massachusetts 01760.

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I. INTRODUCTION

This handbook was developed to determine the best disposal methods to be used for individual military packaging materials generated at land-based military installations. The recommendations contained herein do not apply to disposal of solid or liquid wastes aboard ships at sea. The results of the detailed paper analysis are described on an individual Summary Fact Sheet for each of the 105 military packaging materials considered. The Fact Sheets were prepared to be useful references for military installations and to offer guidance in the selection of environmentally and economically sound treatment and reclamation or disposal processes.

A detailed technical discussion of the overall approach that led to completion of the summary Fact Sheets has also been prepared for use as a reference for possible future analyses. This analysis approach employed the following basic steps:

A list of 105 materials was prepared for analysis. The material categories included chemicals,* glasses, metals, papers, plastics, textiles, and woods.

The disposability characteristics of packaging materials were defined for each available process.

The alternative processes available for the disposal of packaging materials were reviewed. The possible disposal alternatives included reuse, recycling, pyrolysis, composting, baling, incineration, sanitary landfill, sea disposal, and subjecting to microbial treatment.

A comprehensive review of current related literature was made and related manufacturers and trade associations were contacted to examine the present disposal technology and to identify related studies that have been conducted in the disposal of waste materials.

The alternative solid and chemical waste disposal processes were logically arranged to display the sequence in which they could be used.

*The term "chemical" is being used throughout this handbook to denote liquid materials such as lubricants, cleaning fluids, and preservatives.

The Summary Fact Sheet format for solid materials and for chemical materials was finalized to permit a standard presentation of the results of the disposability analysis.

Criteria were developed to standardize the analysis of each material. The three fundamental criteria classes were environmental, operational, and economic.

A methodology for employing the criteria was developed. Utilizing the methodology, an analysis was performed to determine the preferred disposal process.

The results of the analyses were entered on the Summary Fact Sheets for each individual material.

Although this handbook was not intended to quantify the amount of military waste materials, an indication of the magnitude of the overall waste generation problem at U.S. Army facilities is shown by the refuse data that is displayed in Table 1-1.

TABLE 1-1
Waste Generation at U.S. Army Facilities

REFUSE, CUBIC YARDS COLLECTED PER YEAR	TONS PER CALENDAR DAY*	NO. OF BASES (INDUSTRIAL)	NO. OF BASES (CONTRACTOR OPER)	NO. OF BASES (OTHER)	TOTAL BASES	% OF ALL BASES
1,000 - 50,000	.4 - 20.5	11	10	35	56	43
50,000 - 100,000	20.5 - 41.1	4	1	11	16	12
100,000 - 200,000	41.1 - 82.2	-	4	18	22	17
200,000 - 300,000	82.2 - 123.3	1	3	13	17	13
300,000 - 400,000	123.3 - 164.4	-	-	5	5	4
400,000 - 500,000	164.4 - 205.5	-	-	3	3	2
500,000 - 600,000	205.5 - 246.6	-	-	5	5	4
600,000 - 700,000	246.6 - 287.7	-	-	2	2	2
700,000 - 800,000	287.7 - 328.8	-	-	1	1	1
800,000 - 900,000	328.8 - 369.9	-	-	2	2	2
900,000 - 1,000,000	369.9 - 411.0	-	-	1	1	1
OVER 1,000,000	411.0 - 941.1	-	1	-	1	1
TOTAL		16	19	96	131	102**

* ASSUME 300 LB/CU YD (COMPACTED)

** TOTAL GREATER THAN 100% DUE TO ROUNDING.

DATA COMPILED FROM FACILITIES ENGINEERING, ANNUAL SUMMARY OF OPERATIONS,
FISCAL YEAR 1971, OFFICE OF THE CHIEF OF ENGINEERS, DEPARTMENT OF THE ARMY

2. DESCRIPTION OF THE METHODOLOGY; DEVELOPMENT, AND APPLICATION

This chapter is organized into four separate sections. These sections present:

- . The manner in which the materials were selected and grouped in generic categories
- . The general disposability characteristics for each material category
- . A summary of waste management methods that are applicable to packaging waste
- . A summary of the criteria developed and methodology utilized to determine the preferred disposal process.

2.1 SELECTION OF MILITARY PACKAGING MATERIALS

The list of military packaging that was selected for analysis represents those that are most commonly used and are presented in Table 2-1.

Although the list of materials is not meant to be all inclusive, it does represent a broad overview of the common materials that are used for military packaging purposes.

Table 2.1 provides each of the following descriptions for the individual packaging materials.

- . Material Number—A sequential numbering system has been employed so that one number is assigned to each specific military packaging material. This same number for each material is identified on its Summary Fact Sheet and on its Numerical Process Evaluation Matrix, which appear later in Chapter 4 and Appendix IV, respectively, of this handbook.

Table 2-1
Common Military Packaging Materials

MATERIAL NUMBER	CATEGORY/ NAME	COMMON NAME (FORM)	USE	FED/MIL. SPECS.
	<u>CHEMICALS</u>			
1	ACETONE	ACETONE (LIQUID)	SOLVENT	O-A-51
2	BENZENE	BENZOL (LIQUID)	SOLVENT	VV-B-231
3	CARBON TETRA- CHLORIDE	CARBON TETRACHLORIDE (LIQUID)	SOLVENT	
4	CORROSION PREVENTIVE	CORROSION PREVENTIVE (FLUID)	PRESERVATIVE	MIL-C-6529 MIL-C-15074 MIL-C-16173 MIL-C-81304 MIL-C-11796
5	CORROSION PREVENTIVE	DESSICANT (POWDER)	DEHYDRATING AGENT	MIL-D-3464
6	CORROSION PREVENTIVE	OIL TYPE VOLATILE CORROSION INHIBITOR (FLUID)	PRESERVATIVE	MIL-I-23310
7	CORROSION PREVENTIVE	VCI (SOLID)	PRESERVATIVE	MIL-I-22110
8	DETERGENT	ALKALI CLEANING COMPOUND (LIQUID)	DETERGENT	P-C-436
9	DETERGENT	DETERGENT (LIQUID)	DETERGENT	MIL-D-16791
10	GREASE	GREASE (FLUID)	PRESERVATIVE	MIL-G-81322 MIL-G-23827 MIL-G-10924
11	LUBRICATING OIL	LUBRICATING OIL (LIQUID)	PRESERVATIVE	VV-L-800 MIL-L-3150
12	METHANOL	WOOD ALCOHOL (LIQUID)	SOLVENT	O-M-232
13	PETROLATUM	PETROLATUM (LIQUID)	PRESERVATIVE	MIL-C-10382
14	PETROLEUM CLEANING SOLVENT	STODDARD SOLVENT (LIQUID)	SOLVENT	P-D-680

Table 2-1 (Continued)

MATERIAL NUMBER	CATEGORY/ NAME	COMMON NAME (FORM)	USE	FED/MIL. SPECS.
15	PETROLEUM DISTILLATE	MINERAL SPIRITS (LIQUID)	SOLVENT	TT-T-291
16	PENTACHLORO PHENOL	PENTACHLOROPHENOL (LIQUID)	WOOD PRESERVATIVE	TT-W-572
17	TETRACHLORO- ETHYLENE	PERCHLORO- ETHYLENE (LIQUID)	SOLVENT	O-T-236
18	TRICHLORO- ETHYLENE <u>GLASSES</u>	PERCHLORO- ETHYLENE (LIQUID)	SOLVENT	O-T-634
19	GLASS	FIBERGLASS (FIBER)	CUSHIONING	MIL-C-17435
20	GLASS/ PLASTIC	FIBERGLASS (SHEET)	CONTAINERS, TRAYS	
21	GLASS	GLASS (SOLID STOCK)	CONTAINERS	
22	MINERAL <u>METALS</u>	VERMICULITE (FIBER)	CUSHIONING	MIL-V-21628 MIL-V-23776
23	ALUMINUM	ALUMINUM (FOIL)	TRAYS, WRAPPING	MIL-A-148
24	ALUMINUM	ALUMINUM (SHEET)	CANS, TUBES	QQ-A-250
25	LEAD	LEAD (SHEET)	TUBES	QQ-L-201
26	STEEL, IRON	METAL CYLINDERS (SOLID STOCK)	CYLINDERS, CAPS	
27	STEEL, IRON	METAL DRUMS (SHEET)	DRUMS	PPP-D-705 PPP-D-711
28	STEEL, IRON	METAL STRAPPING (STRAPS)	STRAPPING	QQ-S-781
29	TIN-PLATED STEEL	TIN CANS (SHEET)	CANS	PPP-C-96 PPP-C-29
30	TIN-PLATED STEEL/ ALUMINUM	BIMETALLICS (SHEET)	CANS	
31	VARIOUS METALS	AEROSOLS (SHEET)	PRESSUR- IZED CANS	PPP-C-96

TABLE 2-1 (Continued)

MATERIAL NUMBER	CATEGORY/ NAME	COMMON NAME (FORM)	USE	FED/MIL. SPECS.
	<u>PAPERS</u>			
32	FIBER-BOARD	COATED CORRUGATED CONTAINERBOARD (SHEET)	CONTAINERS	PPP-B-1608
33	FIBER-BOARD	CORRUGATED AND SOLID BOARD OR CONTAINER-BOARD (SHEET)	CONTAINERS	PPP-B-640 PPP-B-1364 PPP-B-636
34	FIBER-BOARD	WAX IMPREGNATED CORRUGATED BOARD (SHEET)	CONTAINERS	PPP-B-1163 MIL-C-3955
35	PAPER	BAG AND SACK (SHEET)	BAGS, SACKS	PPP-S-30 UU-B-36 UU-S-48
36	PAPER	COATED, IMPREGNATED (SHEET)	WRAPPING, BAGS	MIL-P-20293 UU-P-134
37	PAPER	CONVERTING, ENVELOPE (SHEET)	ENVELOPES, TAPES	PPP-T-45
38	PAPER	NEWSPRINT (SHEET, SHREDS)	WRAPPING, DUNNAGE	
39	PAPER	PULP (MOLDED)	TRAYS	
40	PAPER	TISSUE (SHEET)	WRAPPING	UU-P-553
41	PAPER	VCI TREATED PACKAGING MATERIALS (SHEET)	CONTAINERS	MIL-P-3420
42	PAPER	WADDING, CELLULOSE (ROLLS, SHEETS)	CUSHIONING	PPP-C-843
43	PAPER	WAX PAPER (SHREDS)	WRAPPING DUNNAGE	
44	PAPER	WRAPPING (SHEET)	WRAPPING, BAGS	UU-P-268
45	PAPER-BOARD	CHIPBOARD, BOXBOARD (SHEET)	BOXES	UU-C-282 PPP-B-566 PPP-B-676
46	PAPER-BOARD	SPIRALLY WOUND FIBER CAN (TUBE)	CAN	MIL-C-2439 MIL-C-3955
47	PAPER/ FOIL LAMINATION	POLYOLEFIN - FOIL-PAPER (SHEET)	WRAPPING, BARRIER MATERIAL	MIL-B-131

Table 2-1 (Continued)

MATERIAL NUMBER	CATEGORY/ NAME	COMMON NAME (FORM)	USE	FED/MIL. SPECS.
48	PAPER-BOARD/ METAL	METAL-EDGED PAPER-BOARD (SHEET)	BOXES	PPP-B-665
49	PAPER-BOARD/ METAL	METAL-EDGED PAPER-BOARD (SHEET)	DRUMS, TUBES	PPP-D-723
50	FIBER-BOARD/ WOOD	WOOD-CLEATED FIBER-BOARD (SHEET)	BOXES	PPP-B-591
	<u>PLASTICS</u>			
51	ACRYLONITRILE BUTADIENE STYRENE	ABS (SOLID STOCK, SHEET)	TRAYS, CONTAINERS	L-P-1183
52	CELLULOSICS	CELLOPHANE (FILM)	WRAPPING, BAGS	L-C-110 PPP-B-15
53	CELLULOSICS	CELLULOSE ACETATE (SHEET, FILM)	WRAPPING	L-P-504
54	CELLULOSICS	CELLULOSE ACETATE BUTYRATE (SOLID STOCK)	CONTAINERS	L-P-397 L-P-349
55	CELLULOSICS	STRIPPABLE PLASTIC COATING - COLD (FILM)	COATING	MIL-P-45021
56	CELLULOSICS	STRIPPABLE PLASTIC COATING - HOT (FILM)	COATING	MIL-P-149
57	EPOXY	EPOXY RESIN (FILM)	COATING	MIL-R-21931
58	IONOMER	SURLYN (FILM, SHEET)	WRAPPING, MOLDED PARTS	MIL-P-46124
59	IONOMER	SURLYN (FOAM)	CUSHIONING	
60	PHENOLICS	BAKELITE (SOLID STOCK)	TRAYS, CONTAINERS	MIL-R-3745 L-P-1125
61	PLASTIC/FOIL LAMINATION	POLYOLEFIN/ ALUMINUM/ POLYESTER (SHEET)	WRAPPING, POUCHES	

TABLE 2-1 (Continued)

MATERIAL NUMBER	CATEGORY/ NAME	COMMON NAME (FORM)	USE	FED/MIL. SPECS.
62	POLYACRYLICS	LUCITE, PLEXIGLAS (SOLID STOCK, SHEET)	CONTAINERS	MIL-P-8184
63	POLYAMIDS	NYLON (CLOTH)	SACKS	MIL-C-81268
64	POLYAMIDS	NYLON (FIBER)	CORD	MIL-C-5040
65	POLYCARBONATE	POLYCARBONATE (SHEET)	WRAPPING	MIL-P-46144 MIL-P-83310
66	POLYCARBONATE	POLYCARBONATE (SOLID STOCK)	CONTAINERS	
67	POLYESTER	DACRON (FIBER)	STRAPS	
68	POLYESTER	MYLAR (FILM)	POUCHES	L-P-377
69	POLYOLEFIN	POLYETHYLENE (FILM)	WRAPPING, POUCHES	L-P-378
70	POLYOLEFIN	POLYETHYLENE (SOLID STOCK)	CONTAINERS	MIL-D-40030
71	POLYOLEFIN	POLYPROPYLENE (FIBER)	CORD	MIL-R-24049
72	POLYOLEFIN	POLYPROPYLENE (FILM)	WRAPPING, POUCHES	L-P-378
73	POLYOLEFIN	POLYPROPYLENE (FOAM)	CUSHIONING	PPP-C-1797
74	POLYOLEFIN	POLYPROPYLENE (SOLID STOCK)	CONTAINERS	L-P-393 L-P-394
75	POLYSTYRENE	POLYSTYRENE (SHEET, FILM)	WRAPPING	L-P-506
76	POLYSTYRENE	POLYSTYRENE (SOLID)	CONTAINERS, MOLDED PARTS, SHEETING	L-P-396
77	POLYSTYRENE	STYROFOAM (FOAM)	CONTAINERS	
78	POLYSTYRENE	STYROFOAM (FOAM)	CUSHIONING	PPP-C-850

Table 2-1 (Continued)

MATERIAL NUMBER	CATEGORY/ NAME	COMMON NAME (FORM)	USE	FED/MIL. SPECS.
79	POLYSTYRENE	STYROFOAM (PELLETS)	DUNNAGE	MIL-P-19644
80	POLYSULPHONE	POLYSULPHONE (SOLID STOCK)	TRAYS, CON- TAINERS	MIL-P-46120
81	POLYTETRA- FLUOROETHYL- ENE	TEFLON (SHEET, FILM)	WRAPPING	MIL-P-22241
82	POLYTETRA- FLUOROETHYL- ENE	TEFLON (SOLID STOCK)	CONTAINERS	L-P-403
83	POLYURE- THANE	POLYURETHANE (FILM)	WRAPPING	MIL-P-43604
84	POLYURE- THANE	POLYURETHANE (FOAM)	CUSHIONING	MIL-P-26514
85	POLYURE- THANE	POLYURETHANE (SOLID STOCK)	CONTAINERS	MIL-M-24041 MIL-C-38226
86	POLYVINYL ALCOHOL	PVA (SHEET)	WRAPPING	
87	POLYVINYL ALCOHOL	PVAC (SHEET)	WRAPPING	L-P-535
88	POLYVINYL CHLORIDE	PVC (FILM)	WRAPPING, POUCHES, WATERPROOF COVERS	L-P-375
89	POLYVINYL CHLORIDE	PVC (SOLID STOCK)	CONTAINERS, BLISTER PACKAGES, LINERS	L-P-535
90	POLYVINYL- DENE CHLORIDE	SARAN, PVDC (FILM)	WRAPPING	L-P-370
91	RUBBER	LATEX (FOAM)	CUSHIONING	MIL-R-5001
	<u>TEXTILES</u>			
92	BOUND FIBER	RUBBERIZED HAIR (FIBER)	CUSHIONING	PPP-C-1120
93	CANVAS, RUBBERIZED	TARP (CLOTH)	TARPAULIN...	

TABLE 2-1 (Continued)

MATERIAL NUMBER	CATEGORY/ NAME	COMMON NAME (FORM)	USE	FED/MIL. SPECS.
94	COTTON	COTTON (CLOTH)	CUSHIONING	
95	COTTON	COTTON (CLOTH)	RAGS	
96	COTTON	COTTON (CLOTH)	SACKS	PPP-B-1358 PPP-B-1087
97	FELT	FELT (SHEET)	CUSHIONING	C-F-202 C-F-206
98	JUTE	BURLAP (CLOTH)	SACKS	PPP-B-35 CCC-C-467
99	SCRIM/FOIL LAMINATION	POLYOLEFIN/ ALUMINUM/SCRIM (SHEET)	BARRIER MATERIAL	MIL-B-131
	<u>WOODS</u>			
100	WOOD	COOPERAGE (BOARD)	KEGS	PPP-B-1806
101	WOOD	EXCELSIOR (SHREDS)	DUNNAGE	PPP-E-911
102	WOOD	PLYWOOD (SHEET)	CRATES	NN-P-530
103	WOOD	VENEER (SHEET)	CRATES	PPP-V-205
104	WOOD	WOOD (BOARD)	BOXES PALLETS	MIL-P-45449 MIL-C-104 NN-P-71 MIL-P-15011
105	WOOD/ METAL	NAILED OR WIREBOUND (BOARD)	CRATES BOXES	PPP-B-585 PPP-B-587 PPP-B-601 PPP-B-621 MIL-B-2427 MIL-B-46506

- . Category - This is the fundamental class of the specific packaging materials. The different categories utilized are chemicals, glasses, metals, papers, plastics, textiles, and woods.
- . Name - This is the common generic name of the material.
- . Common Name (Form) - This is the common name of the material. In parentheses is the form in which the material is analyzed.
- . Use - This is the common *intended* use of the material.
- . Federal/Military Specs - This is the federal or military specification that defines the particular packaging material.

2.2 GENERAL DISPOSABILITY CHARACTERISTICS OF MATERIALS BY CATEGORY

Although packaging materials can be described by their physical and chemical characteristics, there are no universally accepted criteria for their disposability. Disposability criteria for the evaluation of the selected materials were developed for each applicable disposal process. For example, these criteria readily permit an initial determination that a noncombustible material would be undesirable for disposal by an incineration process. Further application of the criteria may determine that this material is a good candidate for disposal by the sanitary landfill process.

This section briefly describes the disposability characteristics of each chemical and solid packaging material category.

2.2.1 Chemicals

Chemical (liquid) preservative and packaging compounds, represented by 18 of the materials included in this handbook are normally used in conjunction with other forms of packaging to protect a product from abrasion, wear, or chemical corrosion.

The chemicals investigated in this handbook include the corrosion preventives, preservative oils, solvents, and detergents that are used by the Army in packaging or ancillary to packaging, such as corrosion removal.

In general, chemical packaging materials exhibit the following disposability characteristics:

High combustibility

Material density ranging from 53 to 72 lb/cu ft

High toxicity.

These disposal characteristics are generally applicable to the range of chemicals that was analyzed in this study. Therefore, separate sets of specific disposal characteristics for individual categories of chemicals were not developed.

The typical methods for disposal of chemical wastes by recovery and reuse are based upon small- and medium-quantity lots.

The chemicals included in this handbook (primarily solvents) are relatively inexpensive. Consequently, equipment and procedures for reclaiming the chemicals of small lots (less than 1 liter) would not be economical. However, carbon tetrachloride, tetrachloroethylene, trichloroethylene, Stoddard solvent, and benzene when used as dry cleaning fluids are exceptions, since most dry cleaning equipment includes a small recovery and cleaning still.

The Summary Fact Sheet for each type of liquid waste contains a ranking for each method of disposal applicable to the particular chemical involved. Recommended procedures for disposal of liquids by either recovery or final disposal are also briefly described in the Summary Fact Sheets. Procedures are indicated for disposal of small spills of liquids and for recovery or final disposal of large quantities of highly hazardous liquids.

Some liquid materials, such as pastes and hazardous liquids, require special handling for spills. Paste materials, such as greases and petrolatum, are normally used as coatings for prevention of corrosion or as lubricants. These materials will remain relatively consistent if spilled and would therefore, not constitute a typical spill. Generally, small spills of these materials can be disposed, large spills can be recovered, and the uncontaminated portion of the material can be reused. However, after the paste materials have been used as lubricants or as coatings for prevention of corrosion, they are generally not reclaimable.

The special procedures for disposal of the paste materials also apply to hazardous chemicals. However, the following additional procedures must be used for the handling of a hazardous chemical spill.

Prepare the chemical handling area for emergency conditions prior to handling the material. Emergency facilities should be constructed (for example, containment berms) with safety and emergency procedures in ready condition and close at hand. Spills should not be allowed to enter sewers or waterways.

Evacuate the area of all personnel except those properly equipped, trained, and necessary for containment and collection of the material.

Follow prescribed personnel safety procedures such as the wearing of respirators.

Extinguish and remove all sources of ignition if the chemical is flammable.

Contain the spill.

Collect the chemical as soon as containment is complete. Necessary equipment should be stored in the area and easy access is imperative. Examples of equipment that may be needed include:

- Scoops and pails
- Absorbent materials
- Covered containers
- Cleaning compounds such as detergents
- Mops
- Water vacuums
- Storage drums.

Collect as much of the chemical as possible in appropriate containers (some solvents will dissolve plastics).

Mark all containers with the name of the chemical, date of spill, description of accident (i.e., spilled into dirt, grass, etc.), and a responsible person to contact for information on the accident. A supplier may require additional information to simplify reprocessing.

Wash the spill site.

Transport containers of the contaminant to storage, recovery, or disposal areas as determined by the cognizant facility disposal officer.

Notify the Environmental Protective Agency, especially if the spill might contaminate ground or navigable waters.

2.2.2 Solids

Solid materials are used for a variety of military packaging applications including solid and flexible containers, wrappings, seals, partitions, strappings, bags, printed matter, and pallets. Of the 105 materials analyzed in this handbook, 87 were solids. The solids can be readily categorized as being either glass, metal, paper, textile, wood, or plastic. *The relative dominance of the solids in the study and their ready ability to be categorized provided the basis for developing disposability characteristics for each solid material category. The more general characteristics of the liquids have prevented them from being separated into such distinct categories.*

The general disposability characteristics of the solids' categories are presented in the following paragraphs.

2.2.2.1 Glass

Glass makes a strong container with high gloss and transparency. It is chemically inert and an absolute barrier against all external influences except temperature and light. Based on total U.S. tonnage, glass represents approximately 18 percent of the total tonnage of packaging materials.

Among packaging materials, glass can present an incineration problem regardless of the package size or shape in an incinerator. Glass may liquefy and then deposit on the incinerator walls or floor surfaces, forming a bond with the firebrick which is greater than the adhesion of the brick itself. When these surfaces are cleaned, the brick is unavoidably eroded.

Generally, glass exhibits the following disposability characteristics:

Easily fragmented

Easily compacted

Separable by optical means

Nontoxic

Noncombustible

Highly resistant to biological and chemical degradation.

Average material density of 156 lb/cu ft.

2.2.2.2 Metal

Metal, which accounts for approximately 16 percent of the total tonnage of packaging wastes, has one overriding advantage over any other kind of packaging material — its strength. Metal containers also generally protect their contents well from the effects of heat, cold, moisture, rough handling, and light.

Metal containers are noncombustible and are not reported to cause damage to incinerators unless they are overly massive. In fact, there is some indication that the presence of metal containers can have a beneficial effect by creating hollows in the refuse, thus aiding air movements and combustion.

Generally, metal exhibits the following disposability characteristics:

Noncombustible

Nontoxic

Highly resistant to biological and chemical degradation

Separable by mechanical means (ferrous metals).

2.2.2.3 Paper

Paper and paperboard dominate the packaging materials field and represent about 50 percent of all packaging consumed. This dominance results from paper's ability to package almost any item, its relatively low cost and its ready ability to be printed and combined with other materials. Paper's wide use for packaging also results from its use as a secondary form of packaging contained within a primary container.

In 1969, of the 53 million tons of fibrous materials consumed in papermaking, 19 percent was due to recycled waste paper. Because of a number of contaminants, such as clay coating, asphalt, plastic coatings, adhesives, and laminations, the desirability of paper as a secondary (recyclable) material is reduced. Paperboard and construction grade paper are the principal paper stocks that are recycled.

The disposability characteristics of paper packaging materials are as follows:

High cellulose content

Easily fragmented and compacted

Highly combustible

Nontoxic

Susceptible to biological and chemical degradation

Average material density ranging from 44 to 72 lb/cu ft

Combustion at temperatures ranging from 200 to 500°F and heat of combustion of approximately 7500 Btu/lb.

2.2.2.4 Textiles

Textiles account for about 0.5 percent of all packaging wastes. Most textile packaging is in the form of bags or sacks, which are made from either burlap or cotton. Only a small amount of synthetic fibers is used. Burlap bags are strong and have good tear and snag resistance characteristics. On the other hand, cotton sacks have a tighter weave than burlap bags and are usually used for products that might sift through the looser weave of burlap.

Textile bags are often collected, renovated, and directly reused. Burlap bags may be reused 10 to 12 times before disposal. Cotton sacks are usually put to a secondary use such as for yard goods for items such as rags and towels.

The general disposability characteristics of textiles are as follows:

High cellulose content

Good to excellent fragmentability and compactibility

Nontoxic

Highly susceptible to chemical and biological degradation

Average material density of 95
lb/cu ft

Combustion at approximately 50° F
and heat of combustion of 8000
Btu/lb.

2.2.2.5 Wood

Wood is a traditional packaging material but represents only a minor segment of all packaging materials. In terms of U.S. tonnage, wood packaging materials account for about 9 percent of all packaging materials consumed.

Wood containers are primarily used because of their relatively low cost and high strength. They often go through several cycles of use before they are discarded.

Wood is usually used in its natural state; it is seldom coated or chemically altered. Unlike paper wood packaging materials are not usually recycled, but as stated above, are usually directly reused.

In general, the disposability characteristics of wood packaging materials are as follows:

High cellulose content

Nontoxic

Susceptible to biological and
chemical degradation

Average material density of 27
lb/cu ft

Combustion temperature of
approximately 525° F

Heat of combustion of
approximately 8500 to 9200
Btu/lb.

2.2.2.6 Plastic

Within the solid materials category, plastic represents a large and increasing percentage of the total amount of packaging materials. In addition, plastic packaging materials represent a wide range of chemical and physical characteristics. Minor changes in the chemical composition of some plastics may result in significant changes in their disposability.

For these reasons a set of general disposability characteristics applicable to all plastic materials could not be developed. Therefore, the disposability of the plastics has been specifically characterized for each of the applicable disposal processes including: reuse, recycle, pyrolysis, composting, incineration, and landfill. The disposability characteristics of plastics for each of these processes are as follows:

Reuse — The reuse of plastic containers is presently limited by the following factors:

- The present nonreturnable plastic containers used by the Army will require extensive redesigning in order to increase their durability, strength, and capability to pass through a decontamination process for reuse.
- Additional decontamination facilities will be required at all bases where this process is performed.

Recycle — A key factor influencing the recycling of plastics is the availability of a market for the waste packaging material once it has been collected and segregated. Plastics used as packaging materials (e.g., in fabrication of bottles, films, and coatings) have tightly controlled specifications, but molded and extruded products such as hardwares and pipes require raw materials of wider specification range. Thus, scrap from monoplastics (e.g., PVA, polyolefin, and polyethylene) can be used for pipes, pallets, and a variety of

structural products. Such recycling will require an extensive sorting of packaging waste into the different types of plastic. Mechanical means to separate plastic scrap are not currently available, and therefore, unless manual separation is utilized, the use of the packaging material wastes would be limited to construction and building materials; for example, plastics may be mixed with traditional construction materials in walls, roofs, floors, ceilings, and roads. Reprocessing of a mixture of different plastics normally produces products with poor physical properties.

Pyrolysis — Pyrolysis of a comparatively homogeneous material containing a high percentage of organic polymer was recently investigated by the U.S. Bureau of Mines. That study demonstrated the technical feasibility of destructive distillation as a means for obtaining potentially valuable products from the polymer waste. Pyrolysis of the thermoplastic polymer solid waste might be a very attractive reclamation method if it could be made to yield essentially only a single product (the monomer) in high yield. However, numerous past studies have shown that only a few polymers (e.g., polymethyl methacrylate and polytetrafluorethylene) can be made to undergo such a reversible thermal depolymerization. The vast majority of polymers, including all the high tonnage thermoplastics, exhibit complex decomposition leading to a wide spectrum of products. The expense of separating even one or two pure components from such a complex nature is likely to be too high to make the process competitive as a source of chemicals. At present, the pyrolysis process for waste reclamation may be regarded more realistically as a potential source of higher grade fuel than the original waste.

Composting — Although plastics are not compostible because they are not susceptible to rapid biodegradation, they do not cause significant problems if the refuse is shredded. Fine plastic particles behave as any other inert material such as small stones or slate; therefore, they would not be expected to have any detrimental effects on the root development and growth processes of plants.

Incineration — Plastics do not ignite or burn readily in many types of conventional incinerators; but they do melt. As such, they deposit as smoldering molten puddles on the grate and may burn erratically or even explosively. Since they have very high heating values (15,000 to 20,000 Btu/lb), the resulting high temperatures require special furnace designs. In addition, the chlorinated plastics such as PVC liberate toxic and corrosive HCL as a combustion product.

Landfill — The following characteristics of the plastic materials should be considered before selecting landfill as the preferred means of disposal:

- Plastic materials generally do not decay or rot even after prolonged soil burial, and therefore represent some of the most persistent components in fill. On the other hand, plastics can be considered the equivalent of an inert material such as broken concrete, and thus provide immediate stability to the landfill.
- Plastics in certain physical forms may introduce special problems in landfills because they are difficult to compact efficiently with ordinary compacting

equipment (tractors, draglines, or steel-wheeled compactors). For example, plastic bottles are not easily compacted and only those in the lower strata of refuse become compressed by the overlying weight. Those with less covering weight are likely to remain intact and contribute to the springiness of the fill. The plastic films cause a problem because they tend to become entangled in the tread wheels and the radiators of spreading and compacting equipment.

2.3 SUMMARY OF APPLICABLE WASTE MANAGEMENT METHODS

This section presents a summary of waste management methods that are applicable to solid packaging waste. It is included because the solids represent nearly 90 percent of the individual materials analyzed in this handbook. They also comprise a much larger quantity of packaging wastes than the chemicals.

A general flow diagram for management of solid packaging waste is shown in Figure 2-1. The following discussion describes each block, i.e., process, shown on the flow diagram.

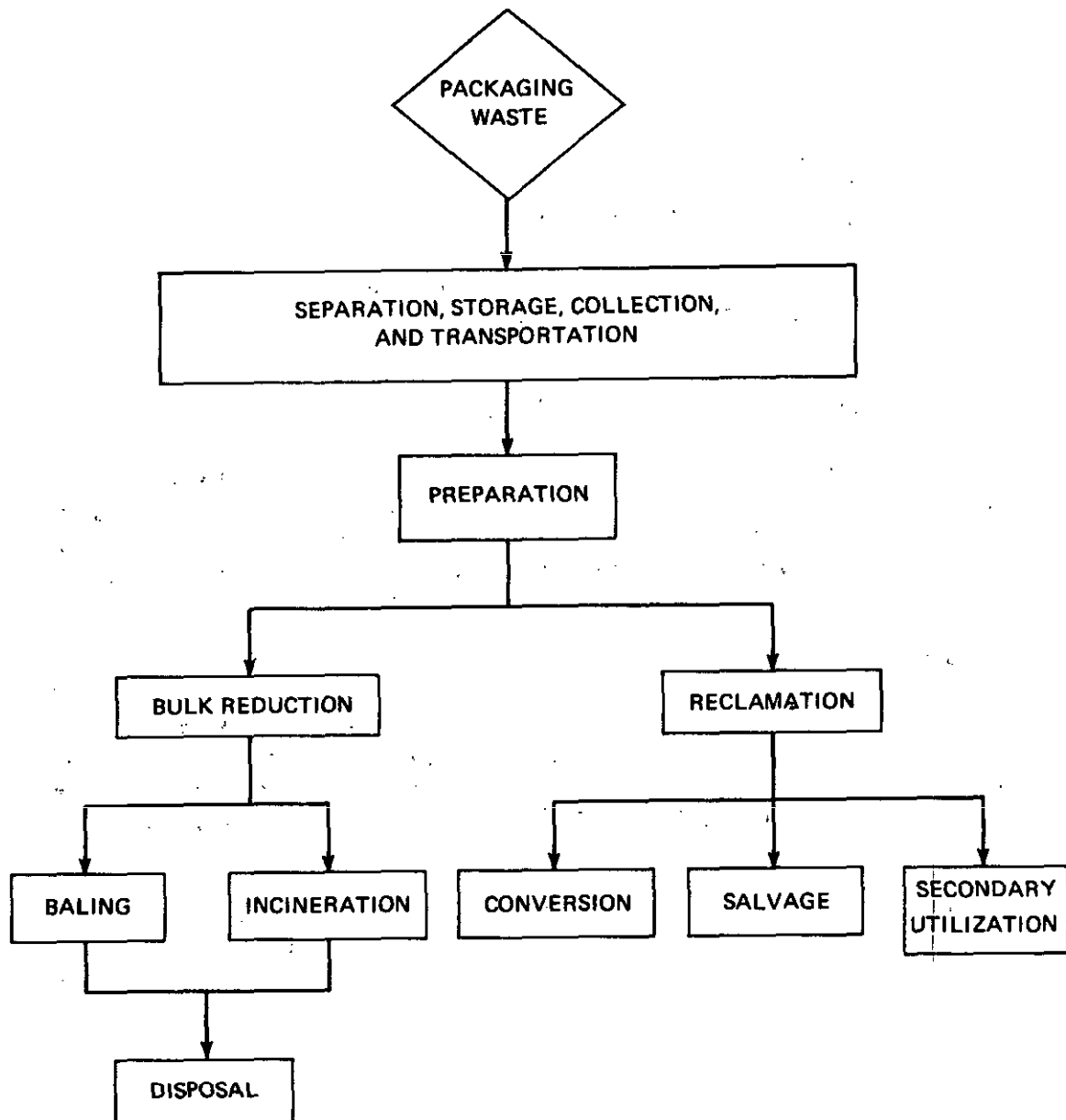
2.3.1 Separation, Storage, Collection, and Transportation

The method of storage and handling of each type of packaging waste is properly determined by its eventual disposition. The discussion here covers source separation, storage, collection, and transportation.

The waste source is the point at which a packaging material becomes a packaging waste, typically upon opening a package and removing its contents. Source separation refers to the separate storage of waste materials when their mixing would interfere with their subsequent disposition.

In a warehouse or similar facility that handles large amounts of packaging materials, the wastes are typically stored in large metal bins that are mated to collection trucks to facilitate removal. Paper stock and certain other materials slated for reclamation can be bundled for shipping.

FIGURE 2-1
Flow Diagram for Management
of Solid Packaging Waste



Compaction devices designed to reduce storage space requirements are available in various shapes and sizes from at least 20 manufacturers. These devices pack waste materials into large bags or metal containers.

Collection vehicles serving commercial establishments or military bases are designed to cope with large containers and are generally operated by a single operator. They fall into four categories:

Semiautomatic rear loaders, similar to the household refuse collection vehicles but equipped with a power device for lifting and tipping the containers.

Automatic front loaders that lift the container over the cab and dump its contents into the packer body behind

Piggyback platforms that lift or pull the full container onto their chassis

Small train-tractor, power vehicles that hook up a string of wheeled containers.

Long-distance hauling of solid wastes is effected with the aid of transfer stations that transfer the waste from collection vehicles onto trailer vans, railroad cars, or barges. Modern stations are normally equipped with a stationary compacting mechanism and may contain fragmentation devices. The number of such transfer stations is expected to grow rapidly as landfills move farther cost factors improve their economic feasibility.

2.3.2 Preparation

Preparation of packaging waste for subsequent processing may take the form of fragmentation and/or sorting. These steps are useful prior to a number of subsequent operations such as baling, incineration, pyrolysis, reclamation, and landfill and are conducted typically at a central processing facility. The requirement for preparatory steps is indicated on each material Summary Fact Sheet in Chapter 3.

Reduction in the average size of the refuse fragment, known as fragmentation, comminution, or presizing, enhances the homogeneity, packing, and handling quality of refuse. The most common fragmentation equipment includes hammer mills, shredders,

shears, and wet pulpers. Other devices with essentially similar functions are variously known as ball mills, cage disintegrators, chippers, crushers, cutters, disk mills, drum pulverizers, grinders, hoggers, and rasp mills.

Sorting of packaging waste into its constituent materials, also known as separation or segregation, is essential in recovery operations, but it is also very useful in other processing steps where it permits the optional adjustment of operating conditions to each category of refuse.

Sorting techniques may be categorized loosely as:

- Manual
- Dimensional
- Dynamic
- Optical
- Electrical and magnetic.

In spite of the rising costs of labor, manual sorting from conveyors is still the most common method. It is employed at nearly all composting plants and some incinerators. Development of mechanical methods has been rather recent and consists largely of adaptation of proven techniques from the mineral processing industry. The alternative processes following preparation would be either bulk reduction or reclamation. Bulk reduction and its two subprocesses, as well as final disposal, are discussed immediately below. The discussion of reclamation and its three subprocesses begins with paragraph 2.3.7 on page 28.

2.3.3 Bulk Reduction

Reduction of the bulk or volume of packaging waste serves to decrease the handling, transportation, and disposal costs.

2.3.4 Baling

Compression of packaging waste is the most direct method of bulk reduction. Its extent is governed not only by the applied pressure but also by the manner of application and the composition of waste. In the ideal configuration, all voids are eliminated, and the close contact between waste particles promotes adhesion and physical interlocking to form a cohesive, stable structure with a density approaching that of the solid material.

Large-scale, high-pressure compaction and baling of municipal waste was popularized with the announcement of a process for compressing refuse into sterile bales that could be clad in asphalt or concrete and used as building blocks. Since then, well over 50 United States' firms have entered the refuse baling field with equipment or management services.

In the narrow bulk reduction role, high-pressure baling offers a number of advantages over conventional incineration.

- It accepts all types of waste including noncombustibles and plastics.

- It yields greater volume reduction on the basis of all municipal wastes (80 to 90 percent versus 65 to 75 percent).

- Its capital and operating costs are, respectively, one-tenth and between one-third and one-half of corresponding incineration costs.

- It requires less maintenance and operating skill.

- It generates no significant air or water pollution.

- It produces a residue that is easier to handle, transport, and landfill.

- It affords nearly full future recovery of waste materials.

High-pressure baling ceases to be superior to incineration when the incinerator process is extended to allow recovery of waste heat.

2.3.5 Incineration

Conventional incineration of packaging and other solid wastes has replaced open burning as a common approach to bulk reduction. Open pit burning is prohibited by AR 11-21, the Federal Water Pollution Act. The smoke and stench contribute appreciably to the local air pollution problem, while incompletely burned organic waste putrefies and attracts rats and flies.

A modern incinerator consists of a combustion chamber where the refuse burns on moving grates at 760° to 982°C (1400° to 1800°F), a secondary combustion zone for burning off combustible gases, and flues to convey the exhaust gases to the stack and then to the atmosphere. The flues of modern incinerators are equipped with pollution control devices to minimize the amount of pollutants discharged into the atmosphere. After incineration, about 10 to 35 percent of the original volume of refuse consisting of sterile incombustible residue and fly ash remains for final disposal.

The major drawbacks of incineration still remain unresolved. These include the high cost of construction, maintenance, and pollution control; frequent downtime to replace refractory lining; grate elements damaged by excessive temperatures and corrosive gases, and incomplete combustion caused by heterogeneity of the waste charge. The principal development efforts designed to correct some of the problems have focused on incineration of bulky waste, suspension of the waste charge, improved emission control, high-temperature incineration, and waste heat recovery.

The recovery of waste heat generated in the incineration of solid wastes, although practiced extensively in Western Europe, has only recently received well deserved attention in the United States, as part of the overall concern with air pollution control and the impending energy crisis. The two most common designs of waste heat recovery installations involve steam generation by a boiler located immediately after the conventional refractory furnace, or by water-bearing pipes imbedded in the furnace walls. The steam can then be used for space heating, for driving a steam turbine that could drive an electric generator, or for other applications.

High-temperature incinerators, also known as slagging incinerators, operate at 1500° to 1700°C (2732° to 3092°F), which is above the melting point of most common substances, whereas in conventional incinerators the temperature must be maintained below 1000°C (1832°F) to prevent damage to refractory lining and grate materials. The principal advantages of high-temperature incinerators are:

- Acceptance of practically all types of municipal waste
- Outstanding bulk reduction of up to 97 percent
- Complete combustion of all combustible materials
- Potential utilization of solid residue
- Generally reduced air pollutant emissions.

The disadvantages include:

- Need for auxiliary fuel and fluxing agent

- More rapid deterioration of refractory material

- High emission of NO_x .

High-temperature incineration technology has been largely borrowed from the steel industry, and the several existing designs are still in the development or demonstration stages.

2.3.6 Disposal

The ultimate disposal of packaging and other solid wastes generally takes place on land, since dumping in the waterways has been banned and disposal at sea is restricted. The preferred form of land disposal is sanitary landfill, though other more innovative approaches have been tried as well.

Sanitary landfill has replaced the open dump as the preferred method of land disposal and currently accounts for nearly 10 percent of waste disposal. Under this approach, the waste is discharged into a trench, compacted by bulldozers, and covered with about 1/2 to 2 ft of compacted soil as a sanitary precaution.

The amount of wastes discharged at sea grew rapidly after World War II reaching 48.2 million tons (wet tonnage) in 1968, but it is now on the decline as a result of federal and state legislation.

In theory the oceans, which cover 71 percent of the earth's surface, offer a nearly unlimited capacity for assimilation of most wastes. In reality, ocean disposal is not desirable because most disposal occurs near coastal areas thereby allowing concentrations of waste materials to be disposed of in excess of the oceans capacity to degrade them. In addition, certain materials such as plastics, are virtually nondegradable in this environment, while most metals degrade very slowly. Rates of decomposition of biodegradable materials such as paper are also slow. Pollution of the oceans is unacceptable not only on aesthetic grounds but also because of the need to preserve the photo-plankton that is largely responsible for generating the world's oxygen supply.

2.3.7 Reclamation

Reclamation of useful components from the solid waste stream can take the form of conversion, salvage, or secondary utilization. The latter involves the use of an unaltered waste material in a new role and is illustrated by the employment of municipal refuse

in altering topographic features for recreational purposes, the incorporation of glass cullet and fly ash in construction materials, or the underwater emplacement of discarded tires as fish habitats. Salvage entails the removal of a component from the waste stream and physical reprocessing into a form suitable for reuse. The most typical applications are the salvage of paper, glass, and metal scrap. Finally, conversion is defined as the chemical or biochemical transformation of a waste material into a useful product. The more promising chemical conversion processes include pyrolysis, hydrogenation, wet oxidation, and hydrolysis; the biochemical processes take in composting, anaerobic digestion, and biological fractionation. Waste heat recovery, a special form of conversion, was reviewed earlier under par 2.3.5, **Incineration**.

2.3.8 Conversion

Pyrolysis or destructive distillation is a time-tested process for breaking down organic substances into a carbonaceous char; an oil fraction containing acetic acid, acetone, and methanol; and a gas fraction consisting primarily of carbon monoxide, hydrogen, methane, and carbon dioxide. This is done by heating the materials at 600° to 1000°C (1112° to 1832°F) in the absence of oxygen. These products can then be separated and sold individually or used as fuel.

During the past decade, a number of successful developmental efforts have been undertaken by the Bureau of Mines Energy Research Center in Pittsburgh and other research institutions to adapt pyrolysis to the treatment of packaging and other municipal wastes. In light of the favorable technical and economic outlook indicated by pilot plant results and limited commercial experience, as well as freedom from the major problems plaguing municipal incinerators, a number of commercial enterprises have attempted to market their own pyrolysis systems.

Composting or aerobic digestion is a controlled process in which aerobic bacteria convert cellulose waste into a relatively inert humus-like material. The procedure generally requires shredding of the waste materials, removal of the 25 percent noncompostable fraction (metals, glass, plastics, and rubber), addition of water or sewage sludge, digestion for 4 to 6 days at 50 to 75°C (122 to 167°F), and curing to reduce the moisture content. The microbiological activity, and consequently the duration of the digestion phase, is a function of the particle size, moisture, oxygen access, temperature, pH and carbon/nitrogen ratio of the waste material. Bulk reduction is between 30 and 50 percent, and the product is suitable for use as a soil conditioner, a base for fertilizer, or even in the manufacture of wallboard.

A number of other chemical and biochemical conversion processes for cellulosic waste have been investigated in the laboratory and pilot plant. Those showing most promise thus far are:

- Hydrogenation
- Wet oxidation
- Hydrolysis
- Anaerobic digestion
- Biological fractionization.

2.3.9 Salvage

For the purpose of this handbook, salvage is defined as the processing of waste materials to restore their original utility and could take the form of direct reuse, recycling, or reprocessing. Direct reuse is best illustrated by returnable containers or pallets; recycling refers to the reuse of process waste at the manufacturing plant; reprocessing involves the cleaning and processing of the consumer or secondary waste for recycling by the manufacturer.

Several major solid waste salvage systems have been proposed during the past few years. They use different combinations of fragmenting, sorting, conversion, and reclamation techniques, and are currently in various stages of design, development, construction, and actual operation.

2.3.10 Secondary Utilization

Secondary utilization, as previously mentioned, involves the use of an unaltered waste material in a new role and is illustrated by the employment of municipal refuse in altering topographic features for recreational purposes, the incorporation of glass cullet and fly ash in construction materials, or the underwater emplacement of discarded tires as fish habitats.

2.4 METHODOLOGY EMPLOYED IN THE DISPOSABILITY ANALYSIS

This section describes the methodology that was employed for analyzing the disposability of the solid and chemical packaging materials. This methodology can also be applied in the future to analyze new materials when they are considered for use by the military for packaging. The three distinct steps of the methodology that were followed during the analysis are illustrated by the waste disposal logic diagrams that depict the physical process alternatives, the Summary Fact Sheet format that portrays a standard presentation of the disposability characteristics, and a summary of the criteria and analytical measures that determine the preferred disposal process. Each of these steps is separately discussed below.

2.4.1 Waste Disposal Logic Diagrams

The waste disposal logic diagrams were prepared for repetitive reference during the analysis of each solid and chemical waste material. These diagrams illustrate the logic of the methodology followed.

2.4.1.1 Solid Waste

The solid waste disposal logic diagram presented in Figure 2-2 depicts the physical process alternatives and their sequence for the disposal of solid waste packaging materials.

It cites the four general process modes or general means of disposal that may be utilized, namely, reuse or recycle, reclamation, bulk reduction or consolidation, and ultimate disposal. Under each process alternative the decision logic and the physical processes that may be employed to dispose of the solid waste are flow-charted. To assist the reader in obtaining familiarity with the diagram, the following guidance is provided.

Starting with a particular solid waste, first determine if the material is reusable, recyclable, or reclaimable. If the material is categorized as any of these, it must then be determined whether the waste is segregated from the solid waste stream. If it is not segregated some means of sorting (i.e., manual or mechanical) must be employed. At this point, the material is classified (denoted by the "OR GATE") as either a reusable material, a recyclable material, or a reclaimable material. The reusable and recyclable materials are shipped to the marketplace, but the reclaimable material is sent through the reclamation logic.

With the contaminants and the liquid identified, the next step is to determine whether the liquid waste is to be recovered and reused. If a portion of the liquid is recoverable and reusable, the reclamation methods are selected from the recovery process alternatives shown in the logic program.

Once the recoverable and reusable portions of the waste have been identified, the disposability of the nonreusable waste must be determined. This may be subject to local regulations and standards, which should be identified. In general, however, it requires removal of toxic components of the waste. As in the removal of reusable portions of the waste, the toxic components are removed by one or more of the nondirect waste disposal process alternatives shown on the disposal logic chart. For example, carbon tetrachloride in most cases cannot be directly landfilled since local regulations prohibit the open release of carbon tetrachloride vapors. In this case, the waste will have to be processed. In contrast, a liquid waste containing carbon tetrachloride can be incinerated (with certain precautions to prevent hydrochloric acid formation) without processing to remove the carbon tetrachloride.

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At this point it must be decided where the reclamation will occur. If the material is to be reclaimed at the base, the need for bulk reduction should be examined. If required, the material will be sent to a shredder followed by composing or pyrolysis. The nonmarketable by-products enter the solid waste stream with the mixed materials (i.e., the materials that were determined not to be reusable, recyclable, or reclaimable).

The next decision is whether or not bulk reduction or consolidation is required. If the answer is yes, three alternative processes may be employed, namely, compaction for bulk consolidation, or shredding or incineration for bulk reduction.

Following these processes there will be mixed materials and/or nonmarketable by-products. For the ultimate disposal, three alternatives are evident. The wastes may be deposited in an open dump, in a sanitary landfill, or in the sea. Sanitary landfill and sea disposal each have associated with them several different types of disposal which may be employed.

2.4.1.2 Liquid Waste

For the purposes of this analysis, liquid waste is defined as a liquid material that is no longer suitable for its original intended use without reprocessing or is only suitable for ultimate disposal. The liquid waste disposal logic diagram presented in Figure 2-3 illustrates the physical process alternatives and their sequence for the disposal of waste liquid preservative and packaging materials. The process alternatives, which are similar to those used in the disposal of solid wastes, permit the partial recovery and reclamation of portions of liquid waste materials.

To assist in obtaining familiarity with Figure 2-3, the following guidance is provided.

Given a liquid waste, the first step is to determine the identification of the waste, the applicable safety procedures, and the contaminants.

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2.4.2 Fact Sheet Format

The primary product of this handbook is the Summary Fact Sheet, one for each material, which:

Describes the nature of the material including its chemical and physical parameters that influence its disposal

Recommends a preferred method of disposal

Contains personalized data supplied by the cognizant officer at each Army base.

Since the physical and chemical properties and the alternative methods of disposal are very different between the solid and chemical (liquid) packaging wastes, it was necessary to compose a separate Summary Fact Sheet that delineates these unique properties and disposal methods for each material form.

2.4.2.1 Solid Waste Summary Fact Sheet Format

The first five blocks of the Solid Waste Summary Fact Sheet format (Figure 2-4) are devoted to the general descriptive information about the material as follows:

Material Description — This block of the Fact Sheet provides a concise description of the material being considered. It first states the general category (e.g., paper, wood, plastic); the specific material's name, common name, and form; and the material's use, specification number, and composition.

Chemical Properties and Characteristics — This block lists those properties that significantly influence the method of disposal.

Disposal Rating Summary — This block outlines any preprocessing steps that should be taken prior to the disposal; the operational, environmental, and total disposal rating; and the disposal and economic ranking. (The actual numerical calculations performed and entered in this block

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE							
							MATERIAL NO.	REFERENCE PG.	OTHER					
1		MATERIAL DESCRIPTION					2		CHEMICAL PROPERTIES					
CATEGORY							MELTING TEMPERATURE		°F					
NAME							COMBUSTION TEMPERATURE		°F					
COMMON NAME (FORM)							HEAT OF COMBUSTION		BTU/LB					
USES							MATERIAL DENSITY		LB/CU.FT.					
FEDERAL/MILITARY SPECIFICATION NUMBER							BULK DENSITY		LB/CU.FT.					
COMPOSITION							3		CHARACTERISTICS					
							FRAGMENTABILITY							
							SEPARABILITY							
							COMPACTIBILITY							
							COMBUSTIBILITY							
							TOXICITY							
							BIOLOGICAL DEGRADABILITY							
							CHEMICAL DEGRADABILITY							
							REUSABILITY							
4		DISPOSAL RATING SUMMARY					5*		SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS					
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *							
REUSE														
RECYCLE														
PYROLYSIS														
COMPOSTING														
BALING														
INCINERATION														
SANITARY LANDFILL														
SEA DISPOSAL														
PRE-PROCESSES:		A = SEPARATION B = COMPACTION C = SHREDDING												
6*		HANDLING DATA			8*			OFF-BASE DISPOSAL/ PROCESSING DATA			10*		NOTES AND COMMENTS	
		METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD						
								SECONDARY MATERIAL HANDLER						
7*		ON-BASE DISPOSAL/ RECLAMATION DATA			9*			OFF-BASE DISPOSAL/ RECYCLING DATA						
		DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD						
								SECONDARY MATERIAL HANDLER						
											*TO BE COMPLETED BY THE COGNIZANT OFFICER			

FIGURE 4
Solid Waste Summary Fact Sheet Format

are presented in the next section entitled Criteria Development and Methodology.) Owing to the specific localized nature of the data, the economic ranking is to be entered by the base cognizant officer of each Army installation. The methodology to be employed is described in the economic section of this report, Chapter 5.

The "Total Disposal Ranking" indicates the sequence in which different processes should be used; that is a ranking of 1 is the "best" process, 2 the "next best", and so on.

Because of the specific nature of the data, the next set of blocks are to be completed by the cognizant officer at each Army installation.

Handling Data — As enumerated in the block, the cognizant disposal officer should fill in the specific manner in which the material is handled prior to disposal. Other notations may be the location and bin number of the solid waste.

Onbase Disposal/Reclamation Data — In this block the cognizant officer should, if applicable, state the actual method of reclamation (pyrolysis or composting) which is used at the base.

Off-Base Disposal/Processing Data and Off-Base Disposal/Recycling Data — In these blocks the cognizant officer should, if applicable, state the nature of the disposal, reclamation, or recycling method used, and the name and address of the secondary material handler.

Notes and Comments — This final block of the Fact Sheet is reserved for the cognizant officer's comments relating to qualitative assessments, geographical or climatological limitations, the amount of the waste material handled on a per-day basis, etc.

2.4.2.2 Liquid Waste Summary Fact Sheet Format

In concept, the Liquid Waste Summary Fact Sheet format, as shown in Figure 2-5, is the same as the Solid Fact Sheet format; in content, the main difference between the two is the type of data or procedures shown on the Fact Sheets. For example, in the second block, which enumerates the chemical properties, there is greater detail in the Liquid Fact Sheet owing to the inherent characteristics of the chemical packaging materials. Likewise, some characteristics of solid packaging materials, such as fragmentability, may not apply to the chemical wastes and therefore are not cited.

The blocks that have not been described previously in the Solid Waste Summary Fact Sheet format are presented below.

Waste Disposal Method for Small Spill — This block describes the method to be used in disposing of a small quantity (generally 1 liter or less) of liquid wastes which occurs because of a spill.

Recovery/Disposal of Highly Hazardous Liquids in Large Quantities — This block enumerates the recovery or disposal method to be used in the recovery or disposal of a large quantity of highly hazardous liquids which occurs because of either a large quantity spill or contamination.

For additional instructions regarding disposal of chemicals, refer to disposal data contained in Military Standards prepared in FS Group 6800; Chemicals and Chemical Products.

2.4.3 Summary of Criteria Development and Methodology

Described below is a summary of:

The criteria developed in order to quantify the disposability characteristics

The methodology employed by using a numerical procedure to determine total disposal rating and ranking that are entered in the *Disposal Rating Summary section of the Summary Fact Sheets*.

A comprehensive description appears in Chapter 4, "Specific criteria Development and Methodology".

It is important to note that although the disposal processes and, hence, the criteria are different for the analysis of the solid and of the chemical waste packaging materials, the rationale behind each is the same.

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE				
							MATERIAL NO.	REFERENCE PG.	OTHER		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES			
CATEGORY							HEALTH		TOXIC HAZARD RATING CODE		
NAME							FIRE		TOXIC HAZARD RATING CODE		
COMMON NAME (FORM)							REACTIVITY		TOXIC HAZARD RATING CODE		
USES							FLASH POINT		°F		
FED/MIL SPECIFICATION NUMBER							IGNITION TEMPERATURE		°F		
COMPOSITION		CONSTITUENTS			% BY WEIGHT		BOILING POINT		°F		
							MELTING TEMPERATURE		°F		
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY				
METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	EXPLOSIVE LIMITS				
DISPOSAL	NOTES						HEAT OF COMBUSTION		BTU LB.		
RECOVERY/REUSE							VAPOR DENSITY (AIR = 1)				
SANITARY LANDFILL							SOLUBILITY IN WATER				
INCINERATION							4*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS			
SEA DISPOSAL											
MICROBIAL TREATMENT											
NOTES:											
5	WASTE DISPOSAL METHOD FOR SMALL SPILL										
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES										
7*	NOTES AND COMMENTS										
*TO BE COMPLETED BY THE COGNIZANT OFFICER											

FIGURE 5
Liquid Waste Summary Fact Sheet Format

2.4.3.1 Criteria Development

In this analysis it was necessary to construct:

Operational criteria to measure the adaptability or feasibility of a material's being processed by a disposal alternative

Environmental criteria to measure the environmental disruption that would be caused by the material's being processed by a disposal alternative.

2.4.3.2 Operational Rating System

The operational criteria were formulated into an operational rating system. This system was designed independent of any specific material. For each process, mutually exclusive material characteristics that would have direct bearing upon the operation of a specific process were determined. Next, a relative importance factor, expressed as a fraction, was assigned to each characteristic for each process.

2.4.3.3 Environmental Rating System

The environmental criteria were formulated into an environmental rating system. This system was designed independent of a specific material/process. In this system, environmental disruptions were analyzed and relative importance factors based on portions of unity (1.0) were assigned to each environmental impact.

2.4.3.4 Operational and Environmental Rating Definitions

To utilize the aforementioned rating systems, rating and rating code scales ranging in numerical value from 0 to 10 were employed. In each system, 0 stands for unsatisfactory and 10 for excellent. Moreover, for each characteristic and environmental impact, definitions corresponding to each rating and rating code have been developed in order to apply the rating system consistently. Basically, these definitions were used as a guide for classifying the waste packaging material on the basis of either a numerically measurable or clearly defined characteristic.

2.4.3.5 Operational and Environmental Rating Methodology

Each material was rated in accordance with the criteria developed in the rating definitions for both operational characteristics and environmental impacts.

After numerical calculations had been made, a total disposal rating was expressed. The total disposal rating determined the best possible disposal process subject of the constraints of maximization of process utility and minimization of environmental pollution.

After computing the total disposal rating, each process was ranked. The disposal ranking is the assignment of sequential numbers starting with the highest disposal rating (ranked as number 1) and ending with the lowest disposal rating. This ranking shows the facility officer the order in which the disposal alternatives should be utilized.

3. SUMMARY FACT SHEETS

The Summary Fact Sheets contained herein present a disposability ranking and additional details for 105 military packaging materials including 18 liquids (i.e., chemicals) and 87 solids (i.e., glass, metal, paper, plastic, textile, and wood).

To select the disposal process that will result in minimal pollution of the environment, the Summary Fact Sheet section, entitled "Disposal Rating Summary", should be used as a guide. Within this block is the "Total Disposal Ranking", which indicates the relative order for selection of the best method of disposal on the basis of the operational and environmental analysis. The best method is given the ranking of 1. The determination of economic feasibility, which depends on such local factors as availability and efficiency of equipment, transportation costs, market for materials, etc., must be made at the installation level on the basis of a life-cycle cost analysis. The proposed economic analysis methodology is described in Chapter 5 of this handbook.

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE NO.	OTHER
							1	236	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	CHEMICAL						HEALTH	TOXIC HAZARD RATING CODE	1
NAME	ACETONE						FIRE	TOXIC HAZARD RATING CODE	3
COMMON NAME (FORM)	ACETONE (LIQUID)						REACTIVITY	TOXIC HAZARD RATING CODE	0
USES	SOLVENT						FLASH POINT	- 0	°F
FED/MIL SPECIFICATION NUMBER	O-A-51						IGNITION TEMPERATURE	1000	°F
COMPOSITION	CONSTITUENTS			% BY WEIGHT			BOILING POINT	133	°F
	CARBON			62.5			MELTING TEMPERATURE	-137	°F
	HYDROGEN			10.0					
			OXYGEN			27.5			
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY		
METHOD OF DISPOSAL		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	EXPLOSIVE LIMITS		
RECOVERY/REUSE		8.5	8.0	8.3	1		HEAT OF COMBUSTION		
SANITARY LANDFILL		(1)					VAPOR DENSITY (AIR = 1)		
INCINERATION		8.0	6.4	7.2	2		SOLUBILITY IN WATER		
SEA DISPOSAL		(1)					SL. SOLUBLE		
MICROBIAL TREATMENT		5.1	2.2	3.7	3		4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
NOTES:							MCA LABEL. ELIMINATE ALL SOURCES OF IGNITION AND FLAMMABLES. WEAR RUBBER GLOVES, FACE SHIELD, LABORATORY COAT. HAVE ALL-PURPOSE CANISTER MASK AVAILABLE.		
(1) THIS MATERIAL IS NOT ACCEPTABLE FOR SANITARY LANDFILL OR SEA DISPOSAL.									
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
ABSORB ON PAPER. EVAPORATE ON AN IRON PAN IN A FUME HOOD. BURN THE PAPER. OR ATOMIZE THE WASTE INTO AN INCINERATOR.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
RECLAIM BY DISTILLATION. INCINERATE RESIDUE.									
7*	NOTES AND COMMENTS								
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
MATERIAL NO.							REFERENCE PG.		OTHER
2							237		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY		CHEMICAL					HEALTH	TOXIC HAZARD RATING CODE	2
NAME		BENZENE					FIRE	TOXIC HAZARD RATING CODE	3
COMMON NAME (FORM)		BENZOL (LIQUID)					REACTIVITY	TOXIC HAZARD RATING CODE	0
USES		SOLVENT					FLASH POINT	12	°F
FED/MIL SPECIFICATION NUMBER		VV-B-231					IGNITION TEMPERATURE	1044	°F
COMPOSITION		CONSTITUENTS			% BY WEIGHT		BOILING POINT	178	°F
		CARBON HYDROGEN			92.0 8.0		MELTING TEMPERATURE	41	°F
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY	.88	
METHOD OF DISPOSAL		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO-NOMIC RANKING	EXPLOSIVE LIMITS	1.4 - 8	
RECOVERY/ REUSE		8.2	7.6	7.9	1		HEAT OF COMBUSTION	-	BTU LB.
SANITARY LANDFILL		(1)					VAPOR DENSITY (AIR = 1)	2.8	
INCINERATION		8.2	4.6	6.4	2		SOLUBILITY IN WATER	SL. SOLUBLE	
SEA DISPOSAL		(1)					4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
MICROBIAL TREATMENT		5.1	2.8	4.0	3				
NOTES:							MCA LABEL. ELIMINATE ALL SOURCES OF IGNITION AND FLAMMABLES. PROVIDE VENTILATION. PROVIDE PERSONAL RESPIRATION FOR EMERGENCY.		
(1) THIS MATERIAL IS NOT ACCEPTABLE FOR SANITARY LANDFILL OR SEA DISPOSAL.									
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
ABSORB ON PAPER. EVAPORATE ON AN IRON PAN IN A HOOD. BURN THE PAPER. OR ATOMIZE THE LIQUID WASTE INTO AN INCINERATOR. COMBUSTION MAY BE IMPROVED BY MIXING WITH A MORE FLAMMABLE SOLVENT.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
RECOVER BY DISTILLATION, ESPECIALLY IF USED AS A DRY CLEANING SOLVENT. INCINERATE RESIDUE.									
7*	NOTES AND COMMENTS								
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							3	238	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	CHEMICAL						HEALTH	TOXIC HAZARD RATING CODE	3
NAME	CARBON TETRACHLORIDE						FIRE	TOXIC HAZARD RATING CODE	0
COMMON NAME (FORM)	CARBON TETRACHLORIDE (LIQUID)						REACTIVITY	TOXIC HAZARD RATING CODE	0
USES	SOLVENT						FLASH POINT	NONE	°F
FED/MIL SPECIFICATION NUMBER	-						IGNITION TEMPERATURE	NON-FLAMMABLE	°F
COMPOSITION	CONSTITUENTS		% BY WEIGHT				BOILING POINT	171	°F
	CARBON CHLORINE		8.2 91.8				MELTING TEMPERATURE	-9.4	°F
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY	1.58	
METHOD OF DISPOSAL	NOTES	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	EXPLOSIVE LIMITS	NONE	
RECOVERY/REUSE		8.7	8.4	8.6	1		HEAT OF COMBUSTION	37.3 $\frac{\text{KC}}{\text{G}}$	$\frac{\text{BTU}}{\text{LB.}}$
SANITARY LANDFILL	(1)						VAPOR DENSITY (AIR = 1)	5.3	
INCINERATION		5.4	6.2	5.8	2		SOLUBILITY IN WATER	INSOLUBLE	
SEA DISPOSAL	(1)						4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
MICROBIAL TREATMENT		2.7	2.8	2.8	3				
NOTES: (1) THIS MATERIAL IS NOT ACCEPTABLE FOR SANITARY LANDFILL OR SEA DISPOSAL							MCA WARNING LABEL. PROVIDE VENTILATION. WEAR RUBBER GLOVES, SELF-CONTAINED RESPIRATOR (OR WORK IN HOOD), LABORATORY COAT. NEVER USE CONTAMINATED DRUMS. FOLLOW PROCEDURES FOR HANDLING OF SPILLS FOR CONTAINER CONTAMINATION.		
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
ABSORB ON PAPER TOWELS AND ALLOW TO EVAPORATE IN THE FUME HOOD. BURN THE PAPER. WASH SITE WITH SOAP SOLUTION.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
CONTAMINATED THROUGH USE: PURIFY BY DISTILLATION, PLACE THE PURE DISTILLATE BACK ON THE SHELF. THE SLUDGE REMAINING MAY BE INCINERATED OR DISPOSED OF IN SANITARY LANDFILL OR INCINERATE WITH SUPPLEMENTARY FUEL IN FUEL-RICH MIXTURE.									
7*	NOTES AND COMMENTS								
1. NOT CORROSIVE OR DANGEROUSLY REACTIVE, BUT TOXIC BY INHALATION, BY PROLONGED OR REPEATED CONTACT WITH THE SKIN, OR MUCOUS MEMBRANE, OR WHEN INGESTED BY MOUTH. 2. DANGEROUS WHEN HEATED TO DECOMPOSITION. EMITS HIGHLY TOXIC FUMES OF CHLORIDES. 3. REPROCESSING EQUIPMENT IS NORMALLY INTEGRAL WITH USE MACHINERY.									
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							4	239	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY		CHEMICAL					HEALTH		TOXIC HAZARD RATING CODE
NAME		CORROSION PREVENTIVE					FIRE		TOXIC HAZARD RATING CODE
COMMON NAME (FORM)		CORROSION PREVENTIVE (FLUID)					REACTIVITY		TOXIC HAZARD RATING CODE
USES		PRESERVATIVE					FLASH POINT		100 °F
FED/MIL SPECIFICATION NUMBER		MIL-C-6529 MIL-C-15074 MIL-C-16173 MIL-C-81304 MIL-C-11796					IGNITION TEMPERATURE		450 - 500 °F
COMPOSITION		CONSTITUENTS			% BY WEIGHT		BOILING POINT		220 - 310 °F
		PETROLEUM SOLVENT NONVOLATILE BASE					MELTING TEMPERATURE		-40 °F
							SPECIFIC GRAVITY		.659 - .970
3	DISPOSAL RATING SUMMARY						EXPLOSIVE LIMITS		1 - 5%
METHOD OF DISPOSAL		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	HEAT OF COMBUSTION		15,000 BTU/LB.
RECOVERY/REUSE			5.5	7.6	6.6	2	VAPOR DENSITY (AIR = 1)		N/A
SANITARY LANDFILL		(1)					SOLUBILITY IN WATER		INSOLUBLE
INCINERATION			8.1	7.0	7.6	1	4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
SEA DISPOSAL		(1)					AGITATE WELL BEFORE USING. CONTAINS COMBUSTIBLE PETROLEUM THINNERS OF 100°F MINIMUM FLASH POINT. AVOID USE NEAR OPEN FLAMES, SPARKS, OR WELDING OR CUTTING OPERATIONS. AVOID PROLONGED OR REPEATED CONTACT WITH THE SKIN, OR BREATHING OF VAPORS. USE PROTECTIVE CLOTHING AND PROPER MASKS FOR PROLONGED EXPOSURES.		
MICROBIAL TREATMENT			3.5	3.2	3.4	3			
NOTES: (1) THIS MATERIAL IS NOT ACCEPTABLE FOR SANITARY LANDFILL OR SEA DISPOSAL.									
5	WASTE DISPOSAL METHOD FOR SMALL SPILL						EXPOSURES.		
ABSORB ON PAPER. EVAPORATE ON AN IRON PAN IN A HOOD AND BURN THE PAPER. OR ATOMIZE THE LIQUID WASTE INTO AN INCINERATOR. COMBUSTION MAY BE IMPROVED BY MIXING WITH A MORE FLAMMABLE SOLVENT.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
IF A LARGE SPILL, FILTER OR CENTRIFUGE TO REMOVE CONTAMINATES (DIRT) AND USE IMMEDIATELY. OR RETURN TO SUPPLIER FOR REFORMULATION. INCINERATE RESIDUE OR CONTAMINATED MATERIAL.									
7*	NOTES AND COMMENTS								
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							5	240	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	CHEMICAL						HEALTH	TOXIC HAZARD RATING CODE 2	
NAME	CORROSION PREVENTIVE						FIRE	TOXIC HAZARD RATING CODE -	
COMMON NAME (FORM)	DESSICANT (POWDER)						REACTIVITY	TOXIC HAZARD RATING CODE -	
USES	DEHYDRATING AGENT						FLASH POINT	- °F	
FED/MIL SPECIFICATION NUMBER	MIL-D-3464						IGNITION TEMPERATURE	- °F	
COMPOSITION	CONSTITUENTS			% BY WEIGHT			BOILING POINT	°F	
	CALCIUM COMPOUNDS AND/OR SILICATES						MELTING TEMPERATURE	°F	
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY	0.85 - 0.95	
METHOD OF DISPOSAL		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECOLOGICAL RANKING	EXPLOSIVE LIMITS	-	
RECOVERY/REUSE	NOTES	8.5	8.4	8.5	1		HEAT OF COMBUSTION	- BTU/LB.	
SANITARY LANDFILL		6.9	7.6	7.3	2		VAPOR DENSITY (AIR = 1)	-	
INCINERATION		4.1	7.2	5.7	5		SOLUBILITY IN WATER	INSOLUBLE	
SEA DISPOSAL		6.0	7.8	6.8	3		4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
MICROBIAL TREATMENT		5.6	7.6	6.6	4				
NOTES:									
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
IF LESS THAN 1 KILOGRAM OF LOOSE MATERIAL, COLLECT AND DISPOSE BY SANITARY LANDFILL. DISPOSE OF DESSICANT BAGS (1) FROM NON-RETURNABLE CONTAINERS IN SANITARY LANDFILL.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
SEGREGATE DEBRIS FROM CHEMICAL. REBAG (1) IF LOOSE AND CHEMICAL CAN BE USED ON SITE. MAINTAIN DESSICANT BAGS (1) WITH ALL RETURNABLE CONTAINERS AND RETURN BAGS WITH CONTAINER.									
7*	NOTES AND COMMENTS								
(1)CHEMICAL IS NORMALLY USED IN CLOTH BAGS TO MAINTAIN DRY ENVIRONMENT DURING STORAGE AND TRANSPORT OF PRESERVED ARTICLE.									
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							6	241	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY		CHEMICAL					HEALTH	TOXIC HAZARD RATING CODE -	
NAME		CORROSION PREVENTIVE					FIRE	TOXIC HAZARD RATING CODE -	
COMMON NAME (FORM)		OIL TYPE VC1 (FLUID)					REACTIVITY	TOXIC HAZARD RATING CODE -	
USES		PRESERVATIVE					FLASH POINT	100 °F	
FED/MIL SPECIFICATION NUMBER		MIL-I-23310					IGNITION TEMPERATURE	450 - 500 °F	
COMPOSITION		CONSTITUENTS			% BY WEIGHT		BOILING POINT	220 - 310 °F	
							MELTING TEMPERATURE	-40 °F	
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY	0.859 - 0.970	
METHOD OF DISPOSAL		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	EXPLOSIVE LIMITS	1 - 5%	
RECOVERY/REUSE		5.5	7.2	6.4	2		HEAT OF COMBUSTION	15,000 BTU/LB.	
SANITARY LANDFILL		(1)					VAPOR DENSITY (AIR = 1)	N/A	
INCINERATION		7.9	6.4	7.2	1		SOLUBILITY IN WATER	INSOLUBLE	
SEA DISPOSAL		(1)					4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS ELIMINATE ALL SOURCES OF IGNITION. AVOID LONG OR REPEATED CONTACT WITH CHEMICAL OR VAPOR. USE PROTECTIVE MASK AND CLOTHING FOR PROLONGED EXPOSURE.		
MICROBIAL TREATMENT		4.6	6.2	5.4	3				
NOTES: (1) THIS MATERIAL IS NOT ACCEPTABLE FOR SANITARY LANDFILL OR SEA DISPOSAL.									
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
ABSORB ON PAPER. EVAPORATE IN FUME HOOD. INCINERATE THE PAPER, OR ATOMIZE LIQUID WASTE INTO AN INCINERATOR. COMBUSTION MAY BE IMPROVED BY MIXING WITH A MORE FLAMMABLE SOLVENT.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
COLLECT AND RETURN TO SUPPLIER FOR REPROCESSING AND REFORMULATION OR INCINERATE AND DISPOSE OF INCINERATOR RESIDUE BY SANITARY LANDFILL.									
7*	NOTES AND COMMENTS								
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							7	242	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY		CHEMICAL					HEALTH		TOXIC HAZARD RATING CODE -
NAME		CORROSION PREVENTIVE					FIRE		TOXIC HAZARD RATING CODE -
COMMON NAME (FORM)		VCI (SOLID)					REACTIVITY		TOXIC HAZARD RATING CODE -
USES		PRESERVATIVE					FLASH POINT		150 °F
FED/MIL SPECIFICATION NUMBER		MIL-I-22110					IGNITION TEMPERATURE		550 - 600 °F
COMPOSITION		CONSTITUENTS			% BY WEIGHT		BOILING POINT		300 °F
							MELTING TEMPERATURE		100 °F
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY		0.7 - 0.9
METHOD OF DISPOSAL		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECOLOGICAL RANKING	EXPLOSIVE LIMITS		1 - 5%
RECOVERY/REUSE		5.5	7.0	6.3	2		HEAT OF COMBUSTION		16,000 BTU/LB.
SANITARY LANDFILL							VAPOR DENSITY (AIR = 1)		N/A
INCINERATION		7.9	6.6	7.3	1		SOLUBILITY IN WATER		INSOLUBLE
SEA DISPOSAL							4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS ELIMINATE ALL SOURCES OF IGNITION. AVOID LONG OR REPEATED CONTACT WITH CHEMICAL OR VAPOR. USE PROTECTIVE MASK AND CLOTHING FOR PROLONGED EXPOSURE.		
MICROBIAL TREATMENT		4.3	6.4	5.4	3				
NOTES:									
(1) THIS MATERIAL IS NOT ACCEPTABLE FOR SANITARY LANDFILL OR SEA DISPOSAL.									
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
COLLECT AND INCINERATE. DISPOSE OF INCINERATED RESIDUE IN SANITARY LANDFILL.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
COLLECT AND RETURN TO SUPPLIER FOR REPROCESSING AND REFORMULATION OR INCINERATE AND DISPOSE OF INCINERATOR RESIDUE BY SANITARY LANDFILL.									
7*	NOTES AND COMMENTS								
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							8	243	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	CHEMICAL						HEALTH	TOXIC HAZARD RATING CODE	2
NAME	DETERGENT						FIRE	TOXIC HAZARD RATING CODE	-
COMMON NAME (FORM)	ALKALI CLEANING COMPOUND (LIQUID)						REACTIVITY	TOXIC HAZARD RATING CODE	-
USES	DETERGENT						FLASH POINT	350	°F
FED/M'L SPECIFICATION NUMBER	P-C-436						IGNITION TEMPERATURE	600	°F
COMPOSITION	CONSTITUENTS			% BY WEIGHT			BOILING POINT	220 - 250	°F
							MELTING TEMPERATURE	10	°F
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY	1.020 - 1.050	
METHOD OF DISPOSAL		NOTES	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	EXPLOSIVE LIMITS	-
RECOVERY/REUSE			8.5	7.6	8.1	1		HEAT OF COMBUSTION	- BTU/LB.
SANITARY LANDFILL			7.3	6.6	7.0	2		VAPOR DENSITY (AIR = 1)	-
INCINERATION			5.3	5.0	5.2	5		SOLUBILITY IN WATER	INFINITE
SEA DISPOSAL			7.2	4.4	5.8	4		4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS	
MICROBIAL TREATMENT			6.6	6.0	6.3	3			
NOTES:							DO NOT TAKE INTERNALLY. KEEP OUT OF EYES. IF SWALLOWED INDUCE VOMITING AND FLUSH WITH WATER. EXTERNAL CONTACT - FLUSH WITH WATER. CALL PHYSICIAN.		
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
IF LESS THAN 1 LITER NEUTRALIZE AND MOP UP DISCHARGE INTO SANITARY SEWER WITH LARGE EXCESS OF WATER.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
IF A LARGE SPILL, COLLECT MATERIAL AND USE IMMEDIATELY. NEUTRALIZE REMAINING MATERIAL, FLUSH AREA WITH WATER, AND ALLOW WATER TO FLOW INTO SANITARY SEWER.									
7*	NOTES AND COMMENTS								
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							B	244	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	CHEMICAL						HEALTH	TOXIC HAZARD RATING CODE	
NAME	DETERGENT						FIRE	TOXIC HAZARD RATING CODE	
COMMON NAME (FORM)	DETERGENT (LIQUID)						REACTIVITY	TOXIC HAZARD RATING CODE	
USES	DETERGENT						FLASH POINT	350 °F	
FED/MIL SPECIFICATION NUMBER	MIL-D-16791						IGNITION TEMPERATURE	600 °F	
COMPOSITION	CONSTITUENTS			% BY WEIGHT			BOILING POINT	430 - 480 °F	
	NONIONIC SURFACE ACTIVE AGENT (TYPE I)			99.0			MELTING TEMPERATURE	32 °F	
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY	1.07	
METHOD OF DISPOSAL		NOTES	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO-NOMIC RANKING	EXPLOSIVE LIMITS	N/A
RECOVERY/ REUSE			6.5	7.4	7.0	2		HEAT OF COMBUSTION	- BTU/LB.
SANITARY LANDFILL			8.0	5.2	6.6	3		VAPOR DENSITY (AIR = 1)	N/A
INCINERATION			5.3	5.0	5.2	5		SOLUBILITY IN WATER	INFINITE
SEA DISPOSAL			7.6	4.8	6.2	4		4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS	
MICROBIAL TREATMENT			8.0	6.4	7.2	1			
NOTES:							DO NOT TAKE INTERNALLY. KEEP OUT OF EYES. IF SWALLOWED, INDUCE VOMITING AND CALL A PHYSICIAN. FOR EYES, FLUSH WITH PLenty OF WATER AND GET MEDICAL ATTENTION.		
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
NEUTRALIZE AND MOP UP OR USE WATER-VAC. DISCHARGE TO SEWER WITH LARGE EXCESS OF WATER.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
IF A LARGE SPILL, COLLECT MATERIAL AND USE IMMEDIATELY. FLUSH AREA WITH WATER AND ALLOW WATER TO FLOW INTO A SANITARY SEWER. DILUTE RESIDUE WITH LARGE QUANTITIES OF WATER AND FLUSH INTO SANITARY SEWER.									
7*	NOTES AND COMMENTS								
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
MATERIAL NO.							REFERENCE PG.		OTHER
10							245		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	CHEMICAL						HEALTH	TOXIC HAZARD RATING CODE	
NAME	GREASE						FIRE	TOXIC HAZARD RATING CODE	
COMMON NAME (FORM)	GREASE (FLUID)						REACTIVITY	TOXIC HAZARD RATING CODE	
USES	PRESERVATIVE						FLASH POINT	400 - 500 °F	
FED/MIL SPECIFICATION NUMBER	MIL-G-81322 MIL-G-10924 MIL-G-23827						IGNITION TEMPERATURE	700 °F	
COMPOSITION	CONSTITUENTS			% BY WEIGHT			BOILING POINT	N/A °F	
							MELTING TEMPERATURE	LESS THAN -40 °F	
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY	.65 - .82	
METHOD OF DISPOSAL	NOTES	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECOLOGICAL RANKING	EXPLOSIVE LIMITS	N/A	
RECOVERY/REUSE		5.0	7.8	6.4	2		HEAT OF COMBUSTION	18,800 - 20,000 BTU/LB.	
SANITARY LANDFILL	(1)						VAPOR DENSITY (AIR = 1)	N/A	
INCINERATION		8.6	5.4	7.0	1		SOLUBILITY IN WATER	INSOLUBLE	
SEA DISPOSAL	(1)						4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS ELIMINATE ALL SOURCES OF IGNITION AND FLAMMABLES.		
MICROBIAL TREATMENT		4.9	2.0	3.5	3				
NOTES: (1) THIS MATERIAL IS NOT ACCEPTABLE FOR SANITARY LANDFILL OR SEA DISPOSAL.									
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
MAKE UP PACKAGES IN PAPER OR OTHER FLAMMABLE MATERIAL. BURN IN THE INCINERATOR. OR THE SOLID MAY BE DISSOLVED IN A FLAMMABLE SOLVENT AND SPRAYED INTO THE FIRE CHAMBER.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
IF A LARGE SPILL, COLLECT UNCONTAMINATED MATERIAL AND USE IMMEDIATELY. INCINERATE RESIDUE OR CONTAMINATED MATERIAL.									
7*	NOTES AND COMMENTS								
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							11	246	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY		CHEMICAL					HEALTH		TOXIC HAZARD RATING CODE
NAME		LUBRICATING OIL					FIRE		TOXIC HAZARD RATING CODE
COMMON NAME (FORM)		LUBRICATING OIL (LIQUID)					REACTIVITY		TOXIC HAZARD RATING CODE
USES		PRESERVATIVE					FLASH POINT		275 °F
FED/MIL SPECIFICATION NUMBER		VV-L-800 MIL-L-3150					IGNITION TEMPERATURE		500 °F
COMPOSITION		CONSTITUENTS			% BY WEIGHT		BOILING POINT		250 - 300 °F
		PETROLEUM FRACTION					MELTING TEMPERATURE		-20 °F
							SPECIFIC GRAVITY		0.75 - 0.88
3	DISPOSAL RATING SUMMARY						EXPLOSIVE LIMITS		N/A
METHOD OF DISPOSAL		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	HEAT OF COMBUSTION		- BTU/LB.
RECOVERY/REUSE		5.0	7.8	6.4	2		VAPOR DENSITY (AIR = 1)		N/A
SANITARY LANDFILL		(1)					SOLUBILITY IN WATER		INSOLUBLE
INCINERATION		8.6	5.4	7.0	1		4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS ELIMINATE ALL SOURCES OF IGNITION AND FLAMMABLES.		
SEA DISPOSAL		(1)							
MICROBIAL TREATMENT		4.9	2.0	3.5	3				
NOTES: (1) THIS MATERIAL IS NOT SUITABLE FOR SANITARY LANDFILL OR SEA DISPOSAL.									
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
ATOMIZE INTO AN INCINERATOR. COMBUSTION MAY BE IMPROVED BY MIXING WITH A MORE FLAMMABLE SOLVENT.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
COLLECT AND MARK FOR REFORMULATION BY SUPPLIER IF AVAILABLE, OTHERWISE DISPOSE OF BY INCINERATION;									
7*	NOTES AND COMMENTS								
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							12	247	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	CHEMICAL						HEALTH	TOXIC HAZARD RATING CODE	1
NAME	METHANOL						FIRE	TOXIC HAZARD RATING CODE	3
COMMON NAME (FORM)	WOOD ALCOHOL (LIQUID)						REACTIVITY	TOXIC HAZARD RATING CODE	0
USES	SOLVENT						FLASH POINT	12	°F
FED/MIL SPECIFICATION NUMBER	O-M-232						IGNITION TEMPERATURE	867	°F
COMPOSITION	CONSTITUENTS			% BY WEIGHT			BOILING POINT	149	°F
	CARBON			37.5			MELTING TEMPERATURE	-144	°F
	OXYGEN			50.0					
			HYDROGEN			12.5			
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY	.79	
METHOD OF DISPOSAL		NOTES	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	EXPLOSIVE LIMITS	6 - 36.5
RECOVERY/REUSE			6.6	8.4	7.5	1		HEAT OF COMBUSTION	- BTU/LB.
SANITARY LANDFILL			5.2	3.6	4.4	4		VAPOR DENSITY (AIR = 1)	1.11
INCINERATION			8.0	6.2	7.1	2		SOLUBILITY IN WATER	-
SEA DISPOSAL			6.7	2.8	4.8	3		4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS	
MICROBIAL TREATMENT			3.6	2.8	3.2	5			
NOTES:							MCA LABEL. ELIMINATE ALL SOURCES OF IGNITION. WEAR RUBBER GLOVES, FACE SHIELD, LABORATORY COAT. HAVE ALL-PURPOSE CANISTER MASK AVAILABLE. ELIMINATE ALL SOURCES OF FLAMMABLES.		
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
ABSORB ON PAPER. EVAPORATE ON AN IRON PAN IN A FUME HOOD. BURN THE PAPER.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
PURIFY BY DISTILLATION OR ATOMIZE AND BURN IN AN INCINERATOR. INCINERATE DISTILLATION RESIDUE. COMBUSTION MAY BE IMPROVED BY MIXING WITH A MORE FLAMMABLE SOLVENT.									
7*	NOTES AND COMMENTS								
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							13	248	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY		CHEMICAL					HEALTH		TOXIC HAZARD RATING CODE
NAME		PETROLATUM					FIRE		TOXIC HAZARD RATING CODE
COMMON NAME (FORM)		PETROLATUM (LIQUID)					REACTIVITY		TOXIC HAZARD RATING CODE
USES		PRESERVATIVE					FLASH POINT		100 °F
FED/MIL SPECIFICATION NUMBER		MIL-C-10382					IGNITION TEMPERATURE		450 °F
COMPOSITION		CONSTITUENTS			% BY WEIGHT		BOILING POINT		300 - 400 °F
		PETROLATUM LANOLIN			31.0 10.5		MELTING TEMPERATURE		150 - 170 °F
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY		0.9 - 1.0
METHOD OF DISPOSAL		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECOLOGICAL RANKING	EXPLOSIVE LIMITS		1 - 8%
RECOVERY/REUSE		5.0	7.8	6.4	2		HEAT OF COMBUSTION		- BTU/LB.
SANITARY LANDFILL		(1)					VAPOR DENSITY (AIR - 1)		N/A
INCINERATION		8.8	5.4	7.0	1		SOLUBILITY IN WATER		INSOLUBLE
SEA DISPOSAL		(1)					4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS USE ONLY FOR CORROSION PREVENTION DURING STORAGE. REMOVE THE PREVENTIVE FROM FOOD HANDLING EQUIPMENT AND MACHINERY BEFORE OPERATING BY FLUSHING WITH HOT WATER (108°F). ELIMINATE ALL SOURCES OF IGNITION AND FLAMMABLES.		
MICROBIAL TREATMENT		4.9	2.0	3.5	3				
NOTES:									
(1) THIS MATERIAL IS NOT ACCEPTABLE FOR SANITARY LANDFILL OR SEA DISPOSAL.									
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
SWEEP ONTO PAPER AND PLACE IN AN IRON PAN IN THE HOOD. BURN THE PAPER AND COMPOUND. OR MAKE UP PACKAGES IN PAPER OR OTHER FLAMMABLE MATERIAL. BURN IN THE INCINERATOR. OR THE SOLID MAY BE DISSOLVED IN A FLAMMABLE SOLVENT AND SPRAYED INTO THE FIRE CHAMBER.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
INCINERATE MATERIAL AND DISPOSE OF RESIDUE IN A LANDFILL.									
7*	NOTES AND COMMENTS								
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							14	249	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	CHEMICAL						HEALTH	TOXIC HAZARD RATING CODE	1
NAME	PETROLEUM CLEANING SOLVENT						FIRE	TOXIC HAZARD RATING CODE	2
COMMON NAME (FORM)	STODDARD SOLVENT (LIQUID)						REACTIVITY	TOXIC HAZARD RATING CODE	
USES	SOLVENT						FLASH POINT	100	°F
FED/MIL SPECIFICATION NUMBER	P-D-680						IGNITION TEMPERATURE	441	°F
COMPOSITION	CONSTITUENTS			% BY WEIGHT			BOILING POINT	428	°F
	PETROLEUM DISTILLATE						MELTING TEMPERATURE	-	°F
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY	1.0	
METHOD OF DISPOSAL	NOTES	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	EXPLOSIVE LIMITS	8.5	
RECOVERY/REUSE		8.2	7.6	7.9	1		HEAT OF COMBUSTION	-	BTU/LB.
SANITARY LANDFILL	(1)						VAPOR DENSITY (AIR = 1)	-	
INCINERATION		8.2	4.6	6.4	2		SOLUBILITY IN WATER	-	
SEA DISPOSAL	(1)						4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS WEAR RUBBER GLOVES, FACE SHIELD, LABORATORY COAT. HAVE ALL-PURPOSE CANISTER MASK AVAILABLE. ELIMINATE ALL SOURCES OF IGNITION AND FLAMMABLES.		
MICROBIAL TREATMENT		5.1	2.8	4.0	3				
NOTES: (1) THIS MATERIAL IS NOT ACCEPTABLE FOR SANITARY LANDFILL OR SEA DISPOSAL.									
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
ABSORB ON PAPER. EVAPORATE ON AN IRON PAN IN A HOOD. BURN THE PAPER. OR ATOMIZE INTO AN INCINERATOR. COMBUSTION MAY BE IMPROVED BY MIXING WITH A MORE FLAMMABLE SOLVENT.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
RECLAIM BY DISTILLATION ESPECIALLY IF USED AS A DRY CLEANING SOLVENT. INCINERATE RESIDUE.									
7*	NOTES AND COMMENTS								
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							15	250	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	CHEMICAL						HEALTH	TOXIC HAZARD RATING CODE	2
NAME	PETROLEUM DISTILLATE						FIRE	TOXIC HAZARD RATING CODE	1
COMMON NAME (FORM)	MINERAL SPIRITS (LIQUID)						REACTIVITY	TOXIC HAZARD RATING CODE	
USES	SOLVENT						FLASH POINT	100	°F
FED/MIL SPECIFICATION NUMBER	TT-T-291						IGNITION TEMPERATURE	450 - 500	°F
COMPOSITION	CONSTITUENTS			% BY WEIGHT			BOILING POINT	200 - 300	°F
	AROMATIC COMPOUNDS			8.0			MELTING TEMPERATURE	-50	°F
	ETHYLBENZENE			20.0					
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY	0.885 - 0.970	
METHOD OF DISPOSAL	NOTES	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	EXPLOSIVE LIMITS	1 - 6%	
RECOVERY/REUSE		7.8	7.2	7.5	1		HEAT OF COMBUSTION	10.2 $\frac{KC}{G}$ $\frac{BTU}{LB.}$	
SANITARY LANDFILL	(1)						VAPOR DENSITY (AIR = 1)	N/A	
INCINERATION		7.1	4.8	5.9	2		SOLUBILITY IN WATER	INSOLUBLE	
SEA DISPOSAL	(1)						4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
MICROBIAL TREATMENT		4.6	3.8	4.1	3				
NOTES:							WEAR RUBBER GLOVES, FACE SHIELD, LABORATORY COAT. HAVE ALL-PURPOSE CANISTER MASK AVAILABLE. ELIMINATE ALL SOURCES OF IGNITION AND FLAMMABLES.		
(1) THIS MATERIAL IS NOT ACCEPTABLE FOR SANITARY LANDFILL OR SEA DISPOSAL.									
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
ABSORB ON PAPER. EVAPORATE ON AN IRON PAN IN A HOOD. BURN THE PAPER. OR ATOMIZE INTO AN INCINERATOR. COMBUSTION MAY BE IMPROVED BY MIXING WITH A MORE FLAMMABLE SOLVENT.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
RECOVER BY DISTILLATION. INCINERATE RESIDUE. RECOVERED THINNER MAY NOT BE SUITABLE FOR HIGH QUALITY PAINTS WHERE COLOR IS CRITICAL.									
7*	NOTES AND COMMENTS								
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							16	251	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	CHEMICAL						HEALTH	TOXIC HAZARD RATING CODE 2	
NAME	PENTACHLOROPHENOL						FIRE	TOXIC HAZARD RATING CODE 1	
COMMON NAME (FORM)	PENTACHLOROPHENOL (LIQUID)						REACTIVITY	TOXIC HAZARD RATING CODE	
USES	WOOD PRESERVATIVE						FLASH POINT	100 °F	
FED/MIL SPECIFICATION NUMBER	TT-W-572						IGNITION TEMPERATURE	450-500 °F	
COMPOSITION	CONSTITUENTS		% BY WEIGHT				BOILING POINT	200-300 °F	
	NOT LESS THAN 80% BY VOL. GRADE 1 THINNER OF TT-T-291						MELTING TEMPERATURE	-50 °F	
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY	0.885-0.970	
METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	EXPLOSIVE LIMITS	1-6%	
DISPOSAL	NOTES						HEAT OF COMBUSTION	10.2 KC/G	
RECOVERY/REUSE		7.8	7.2	7.5	1		VAPOR DENSITY (AIR = 1)	N/A	
SANITARY LANDFILL	(1)						SOLUBILITY IN WATER	INSOLUBLE	
INCINERATION		7.1	4.6	5.9	2		4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
SEA DISPOSAL	(1)						WEAR RUBBER GLOVES, FACE SHIELD, LABORATORY COAT. HAVE ALL-PURPOSE CANNISTER MASK AVAILABLE. ELIMINATE ALL SOURCES OF IGNITION AND FLAMMABLES.		
MICROBIAL TREATMENT		4.6	3.6	4.1	3				
NOTES: (1) THIS MATERIAL IS NOT ACCEPTABLE FOR SANITARY LANDFILL OR SEA DISPOSAL.									
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
ABSORB ON PAPER. EVAPORATE ON AN IRON PAN IN A HOOD. BURN THE PAPER, OR ATOMIZE INTO AN INCINERATOR. COMBUSTION MAY BE IMPROVED BY MIXING WITH A MORE FLAMMABLE SOLVENT.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
7*	NOTES AND COMMENTS								
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							17	252	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	CHEMICAL						HEALTH	TOXIC HAZARD RATING CODE	2
NAME	TETRACHLOROETHYLENE						FIRE	TOXIC HAZARD RATING CODE	1
COMMON NAME (FORM)	PERCHLOROETHYLENE (LIQUID)						REACTIVITY	TOXIC HAZARD RATING CODE	
USES	DRY CLEANING SOLVENT DEGREASING SOLVENT						FLASH POINT	NONE	°F
FED/MIL SPECIFICATION NUMBER	O-T-236						IGNITION TEMPERATURE	-	°F
COMPOSITION	CONSTITUENTS			% BY WEIGHT			BOILING POINT	250	°F
	CARBON CHLORINE			14.48 85.52			MELTING TEMPERATURE	-11	°F
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY,	1.62	
METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	EXPLOSIVE LIMITS	-	
DISPOSAL	NOTES						HEAT OF COMBUSTION	5400	BTU LB.
RECOVERY/REUSE		8.7	8.0	8.4	1		VAPOR DENSITY (AIR = 1)	5.83	
SANITARY LANDFILL	(2)						SOLUBILITY IN WATER	INSOLUBLE	
INCINERATION	(1)	5.4	5.8	5.6	2		4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
SEA DISPOSAL	(2)						PROVIDE VENTILATION, WEAR RUBBER GLOVES AND LABORATORY COAT, AND PROVIDE PERSONAL RESPIRATOR FOR EMERGENCY. DO NOT REUSE CONTAMINATED DRUMS. FOLLOW PROCEDURES FOR SPILLS TO CLEAN CONTAINERS AND RECYCLE OR DISPOSE OF CONTAINERS IN ACCORDANCE WITH SOLID WASTE PROCEDURES.		
MICROBIAL TREATMENT		2.7	2.8	2.8	3				
NOTES: (1) INCINERATOR MUST HAVE SUPPLEMENTAL FUEL AND WATER SCRUBBER. (2) THIS MATERIAL IS NOT ACCEPTABLE FOR SANITARY LANDFILL OR SEA DISPOSAL.									
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
ABSORB ON PAPER TOWELS AND EVAPORATE IN A FUME HOOD. BURN THE PAPER AND WASH THE SITE WITH A SOAP SOLUTION.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
RECOVER BY DISTILLATION. INCINERATE SLUDGE WITH SUPPLEMENTAL FUEL IN FUEL-RICH MIXTURE (3)									
7*	NOTES AND COMMENTS								
(3) FUEL-RICH MIXTURE PERMITS ALL CL TO FORM HCL WHICH CAN BE REMOVED IN A WATER SCRUBBER. A LEAN FUEL MIXTURE PRODUCES CL ₂ WHEN TETRACHLOROETHYLENE IS INCINERATED.									
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET LIQUID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE NO.	OTHER
							18	253	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY		CHEMICAL					HEALTH	TOXIC HAZARD RATING CODE	2
NAME		TRICHLOROETHYLENE					FIRE	TOXIC HAZARD RATING CODE	1
COMMON NAME (FORM)		PERCHLOROETHYLENE (LIQUID)					REACTIVITY	TOXIC HAZARD RATING CODE	
USES		DRY CLEANING SOLVENT DEGREASER					FLASH POINT	NONE	°F
FED/MIL SPECIFICATION NUMBER		O-T-834					IGNITION TEMPERATURE	770	°F
COMPOSITION		CONSTITUENTS			% BY WEIGHT		BOILING POINT	180	°F
		CARBON HYDROGEN CHLORINE					MELTING TEMPERATURE	-99C	°F
3	DISPOSAL RATING SUMMARY						SPECIFIC GRAVITY	1.456	
METHOD OF DISPOSAL		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	EXPLOSIVE LIMITS	NONE	
RECOVERY/REUSE		8.7	8.0	8.4	1		HEAT OF COMBUSTION	280 $\frac{KC}{G}$	870 $\frac{BTU}{LB.}$
SANITARY LANDFILL							VAPOR DENSITY (AIR = 1)	4.53	
INCINERATION		(1) 5.4	5.8	5.6	2		SOLUBILITY IN WATER	INSOLUBLE	
SEA DISPOSAL							4* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS PROVIDE VENTILATION, WEAR RUBBER GLOVES AND LABORATORY COAT, AND PROVIDE PERSONAL RESPIRATOR FOR EMERGENCY. DO NOT REUSE CONTAMINATED DRUMS. FOLLOW PROCEDURES FOR SPILLS TO CLEAN CONTAINERS AND RECYCLE OR DISPOSE OF CONTAINERS IN ACCORDANCE WITH SOLID WASTE PROCEDURES.		
MICROBIAL TREATMENT		2.7	2.8	2.8	3				
NOTES: (1) INCINERATOR MUST HAVE SUPPLEMENTAL FUEL AND WATER SCRUBBER. (2) THIS MATERIAL IS NOT SUITABLE FOR SANITARY LANDFILL OR SEA DISPOSAL.									
5	WASTE DISPOSAL METHOD FOR SMALL SPILL								
ABSORB ON PAPER TOWELS AND EVAPORATE IN A FUME HOOD. BURN THE PAPER AND WASH THE SITE WITH A SOAP SOLUTION.									
6	RECOVERY/DISPOSAL METHOD OF HIGHLY HAZARDOUS LIQUIDS IN LARGE QUANTITIES								
RECOVER BY DISTILLATION. INCINERATE SLUDGE WITH SUPPLEMENTAL FUEL AND FUEL-RICH MIXTURE. (3)									
7*	NOTES AND COMMENTS								
(3) A FUEL-RICH MIXTURE PERMITS ALL CL TO FORM HCL WHICH CAN BE REMOVED IN A WATER SCRUBBER. A LEAN FUEL MIXTURE PRODUCES CL ₂ WHEN TRICHLOROETHYLENE IS INCINERATED.									
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							19	254		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY	GLASS						MELTING TEMPERATURE	1500	^{O F}	
NAME	GLASS						COMBUSTION TEMPERATURE	-	^{O F}	
COMMON NAME (FORM)	FIBERGLASS(FIBER)						HEAT OF COMBUSTION	-	^{BTU} ^{LB}	
USES	CUSHIONING						MATERIAL DENSITY	156	^{LB} ^{CU.FT}	
FEDERAL/ MILITARY SPECIFICATION NUMBER	MIL-C-17435						BULK DENSITY	156	^{LB} ^{CU.FT}	
COMPOSITION	SODA-LIME-SILICA						3	CHARACTERISTICS		
							FRAGMENTABILITY	EXCELLENT		
4	DISPOSAL RATING SUMMARY						SEPARABILITY	POOR		
METHOD OF	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *	COMPACTIBILITY	EXCELLENT			
DISPOSAL	PRE-PROCESS					COMBUSTIBILITY	UNSATISFACTORY			
REUSE	A	3.0	10.0	6.5	3	TOXICITY	EXCELLENT			
RECYCLE	A B	2.4	9.0	5.7	5	BIOLOGICAL DEGRADABILITY	POOR			
PYROLYSIS	A	3.0	8.2	5.6	6	CHEMICAL DEGRADABILITY	POOR			
COMPOSTING	A	3.8	8.2	6.0	4	REUSABILITY	POOR			
BALING	B	5.8	8.2	7.0	2	5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS			
INCINERATION	A	3.3	6.8	5.1	7					
SANITARY LANDFILL	B	7.6	7.8	7.7	1					
SEA DISPOSAL	B	5.0	4.6	4.8	8					
PRE-PROCESSES:										
A = SEPARATION B = COMPACTION C = SHREDDING										
6*	HANDLING DATA					8*	OFF-BASE DISPOSAL/ PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD				
						SECONDARY MATERIAL HANDLER				
7*	ON-BASE DISPOSAL/ RECLAMATION DATA					9*	OFF-BASE DISPOSAL/ RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD				
						SECONDARY MATERIAL HANDLER				
* TO BE COMPLETED BY THE COGNIZANT OFFICER										

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE																																																																							
							MATERIAL NO.	REFERENCE PG.	OTHER																																																																					
							21	256																																																																						
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES																																																																						
CATEGORY	GLASS						MELTING TEMPERATURE	2282- 2732	O _F																																																																					
NAME	GLASS						COMBUSTION TEMPERATURE	-	O _F																																																																					
COMMON NAME (FORM)	GLASS (SOLID STOCK)						HEAT OF COMBUSTION	-	BTU LB																																																																					
USES	CONTAINERS						MATERIAL DENSITY	156	LB CU.FT.																																																																					
FEDERAL/ MILITARY SPECIFICATION NUMBER	-						BULK DENSITY	45	LB CU.FT.																																																																					
COMPOSITION	SODA-LIME-SILICA						3	CHARACTERISTICS																																																																						
4 DISPOSAL RATING SUMMARY <table border="1"> <thead> <tr> <th colspan="2">METHOD OF</th> <th>OPERATIONAL RATING</th> <th>ENVIRONMENTAL RATING</th> <th>TOTAL DISPOSAL RATING</th> <th>TOTAL DISPOSAL RANKING</th> <th>ECONOMIC RANKING *</th> </tr> </thead> <tbody> <tr> <td>DISPOSAL</td> <td>PRE-PROCESS</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>REUSE</td> <td>A</td> <td>8.5</td> <td>10.0</td> <td>9.3</td> <td>1</td> <td></td> </tr> <tr> <td>RECYCLE</td> <td>A B</td> <td>6.8</td> <td>9.0</td> <td>7.9</td> <td>2</td> <td></td> </tr> <tr> <td>PYROLYSIS</td> <td>A C</td> <td>3.6</td> <td>8.2</td> <td>5.9</td> <td>6</td> <td></td> </tr> <tr> <td>COMPOSTING</td> <td>A C</td> <td>4.4</td> <td>8.2</td> <td>6.3</td> <td>5</td> <td></td> </tr> <tr> <td>BALING</td> <td>B</td> <td>6.4</td> <td>8.2</td> <td>7.3</td> <td>4</td> <td></td> </tr> <tr> <td>INCINERATION</td> <td>A C</td> <td>3.4</td> <td>6.8</td> <td>5.1</td> <td>7</td> <td></td> </tr> <tr> <td>SANITARY LANDFILL</td> <td>B</td> <td>7.4</td> <td>7.8</td> <td>7.6</td> <td>3</td> <td></td> </tr> <tr> <td>SEA DISPOSAL</td> <td>B</td> <td>5.6</td> <td>4.6</td> <td>5.1</td> <td>7</td> <td></td> </tr> </tbody> </table> <p>PRE-PROCESSES: A = SEPARATION B = COMPACTION C = SHREDDING</p>							METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *	DISPOSAL	PRE-PROCESS						REUSE	A	8.5	10.0	9.3	1		RECYCLE	A B	6.8	9.0	7.9	2		PYROLYSIS	A C	3.6	8.2	5.9	6		COMPOSTING	A C	4.4	8.2	6.3	5		BALING	B	6.4	8.2	7.3	4		INCINERATION	A C	3.4	6.8	5.1	7		SANITARY LANDFILL	B	7.4	7.8	7.6	3		SEA DISPOSAL	B	5.6	4.6	5.1	7		FRAGMENTABILITY	GOOD
							METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *																																																																	
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				SECONDARY MATERIAL HANDLER																																																																										
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				SECONDARY MATERIAL HANDLER																																																																										

*TO BE COMPLETED BY THE
COGNIZANT OFFICER

SUMMARY FACT SHEET SOLID WASTE										REFERENCE CODE					
										MATERIAL NO.		REFERENCE PG.		OTHER	
										23		258			
1		MATERIAL DESCRIPTION						2		CHEMICAL PROPERTIES					
CATEGORY		METAL						MELTING TEMPERATURE		700 °F					
NAME		ALUMINUM						COMBUSTION TEMPERATURE		- °F					
COMMON NAME (FORM)		ALUMINUM (FOIL)						HEAT OF COMBUSTION		- BTU/LB					
USES		TRAYS, WRAPPING						MATERIAL DENSITY		169 LB/ CU.FT.					
FEDERAL/ MILITARY SPECIFICATION NUMBER		QQ-A-1876						BULK DENSITY		169 LB/ CU.FT.					
COMPOSITION		NOT LESS THEN 99% UNCOATED ALUMINUM						3		CHARACTERISTICS					
								FRAGMENTABILITY		GOOD					
4		DISPOSAL RATING SUMMARY						SEPARABILITY		POOR					
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *	COMPACTIBILITY		EXCELLENT					
REUSE		A	3.5	10.0	6.8	4		COMBUSTIBILITY		UNSATISFACTORY					
RECYCLE		A B	6.8	9.0	7.9	1		TOXICITY		EXCELLENT					
PYROLYSIS		A C	3.0	7.4	5.2	5		BIOLOGICAL DEGRADABILITY		UNSATISFACTORY					
COMPOSTING		A C	2.6	7.4	5.0	6		CHEMICAL DEGRADABILITY		UNSATISFACTORY					
BALING		B	6.4	7.4	6.9	3		REUSABILITY		POOR					
INCINERATION		A C	4.0	6.0	5.0	6		5*		SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS					
SANITARY LANDFILL		B	7.4	6.8	7.1	2									
SEA DISPOSAL		B	5.0	3.8	4.4	7									
PRE-PROCESSES:		A - SEPARATION B - COMPACTION C - SHREDDING													
6*		HANDLING DATA				8*		OFF-BASE DISPOSAL/ PROCESSING DATA				10*		NOTES AND COMMENTS	
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD									
						SECONDARY MATERIAL HANDLER									
7*		ON-BASE DISPOSAL/ RECLAMATION DATA				9*		OFF-BASE DISPOSAL/ RECYCLING DATA							
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD									
						SECONDARY MATERIAL HANDLER									

*TO BE COMPLETED BY THE COGNIZANT OFFICER

[illegible]

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE																																																																						
							MATERIAL NO.	REFERENCE PG.	OTHER																																																																				
							26	261																																																																					
1 MATERIAL DESCRIPTION		2 CHEMICAL PROPERTIES																																																																											
CATEGORY	METAL					MELTING TEMPERATURE	2800 °F																																																																						
NAME	STEEL, IRON					COMBUSTION TEMPERATURE	- °F																																																																						
COMMON NAME (FORM)	METAL CYLINDERS (SOLID STOCK)					HEAT OF COMBUSTION	- BTU/LB																																																																						
USES	CYLINDERS, CAPS					MATERIAL DENSITY	489 LB/CU.FT.																																																																						
FEDERAL/MILITARY SPECIFICATION NUMBER						BULK DENSITY	15 LB/CU.FT.																																																																						
COMPOSITION	IRON, CARBON, MANGANESE, PHOSPHORUS, SULPHUR, SILICON					3 CHARACTERISTICS																																																																							
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						METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *																																																																	
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						BALING	B	5.8	7.4	6.6	3																																																																		
INCINERATION	A	1.5	6.0	3.8	7																																																																								
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SEA DISPOSAL		3.7	3.8	3.8	7																																																																								
SEPARABILITY	EXCELLENT																																																																												
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5 SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS																																																																													
6 HANDLING DATA				8 OFF-BASE DISPOSAL/PROCESSING DATA		10 NOTES AND COMMENTS																																																																							
METHOD OF STORAGE/COLLECTION				DISPOSAL/PROCESSING METHOD																																																																									
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DISPOSAL/RECLAMATION METHOD				DISPOSAL/RECYCLING METHOD																																																																									
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SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							39	242	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	METAL						MELTING TEMPERATURE	2800	°F
NAME	STEEL, IRON						COMBUSTION TEMPERATURE	-	°F
COMMON NAME (FORM)	METAL DRUMS (SHEET)						HEAT OF COMBUSTION	-	BTU/LB
USES	DRUMS						MATERIAL DENSITY	489	LB/CUFT.
FEDERAL/MILITARY SPECIFICATION NUMBER	PPP-D-705 PPP-D-711						BULK DENSITY	6	LB/CUFT.
COMPOSITION	-						3	CHARACTERISTICS	
							FRAGMENTABILITY	POOR	
							SEPARABILITY	EXCELLENT	
							COMPACTIBILITY	FAIR	
							COMBUSTIBILITY	UNSATISFACTORY	
							TOXICITY	EXCELLENT	
							BIOLOGICAL DEGRADABILITY	UNSATISFACTORY	
							CHEMICAL DEGRADABILITY	UNSATISFACTORY	
							REUSABILITY	EXCELLENT	
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS	
4							DISPOSAL RATING SUMMARY		
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *		
REUSE	A	10.0	10.0	10.0	1				
RECYCLE	A	7.6	9.0	8.3	2				
PYROLYSIS	A	3.6	7.4	5.5	5				
COMPOSTING	A	3.2	7.4	5.3	6				
BALING	B	7.6	7.4	7.5	3				
INCINERATION	A	3.2	6.0	4.6	7				
SANITARY LANDFILL	B	5.3	6.8	6.1	4				
SEA DISPOSAL	B	4.4	3.8	4.1	8				
PRE-PROCESSES:							A - SEPARATION B - COMPACTION C - SHREDDING		
6*	HANDLING DATA						8*	OFF-BASE DISPOSAL/ PROCESSING DATA	
METHOD OF STORAGE/COLLECTION							DISPOSAL/PROCESSING METHOD		
							SECONDARY MATERIAL HANDLER		
7*	ON-BASE DISPOSAL/ RECLAMATION DATA						9*	OFF-BASE DISPOSAL/ RECYCLING DATA	
DISPOSAL/RECLAMATION METHOD							DISPOSAL/RECYCLING METHOD		
							SECONDARY MATERIAL HANDLER		
							*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							28	263	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	METAL						MELTING TEMPERATURE	2800	Q _F
NAME	STEEL, IRON						COMBUSTION TEMPERATURE	-	Q _F
COMMON NAME (FORM)	METAL STRAPPING (STRAPS)						HEAT OF COMBUSTION	-	BTU/LB
USES	STRAPPING						MATERIAL DENSITY	489	LB/CU.FT.
FEDERAL/MILITARY SPECIFICATION NUMBER	QQ-S-781						BULK DENSITY	489	LB/CU.FT.
COMPOSITION	IRON, CARBON, MANGANESE, PHOSPHORUS, SULPHUR, SILICON						3 CHARACTERISTICS		
							FRAGMENTABILITY	UNSATISFACTORY	
							SEPARABILITY	EXCELLENT	
							COMPACTIBILITY	POOR	
							COMBUSTIBILITY	UNSATISFACTORY	
							TOXICITY	EXCELLENT	
							BIOLOGICAL DEGRADABILITY	UNSATISFACTORY	
							CHEMICAL DEGRADABILITY	UNSATISFACTORY	
							REUSABILITY	UNSATISFACTORY	
							5* SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS		
							THIS MATERIAL IS NOT SUITABLE FOR REUSE.		
4 DISPOSAL RATING SUMMARY									
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO-NOMIC RANKING *		
REUSE									
RECYCLE		A B	9.0	9.0	9.0	1			
PYROLYSIS		A	2.8	7.4	5.1	3			
COMPOSTING			2.4	7.4	4.9	4			
BALING		B	2.2	7.4	4.8	5			
INCINERATION		A	2.5	6.0	4.3	6			
SANITARY LANDFILL			4.6	6.8	5.7	2			
SEA DISPOSAL			4.1	3.8	4.0	7			
PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING									
6* HANDLING DATA		7* ON-BASE DISPOSAL/RECLAMATION DATA		8* OFF-BASE DISPOSAL/PROCESSING DATA		9* OFF-BASE DISPOSAL/RECYCLING DATA		10* NOTES AND COMMENTS	
METHOD OF STORAGE/COLLECTION		DISPOSAL/RECLAMATION METHOD		DISPOSAL/PROCESSING METHOD		DISPOSAL/RECYCLING METHOD		*TO BE COMPLETED BY THE COGNIZANT OFFICER	

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE NO.	OTHER
							30	265	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	METAL						MELTING TEMPERATURE	449(TIN) 2800(STEEL) 1200(AL)	
NAME	TIN PLATED STEEL/ ALUMINUM						COMBUSTION TEMPERATURE	- °F	
COMMON NAME (FORM)	BIMETALLICS (SHEET)						HEAT OF COMBUSTION	- BTU LB	
USES	CANS						MATERIAL DENSITY	488 LB CU.FT.	
FEDERAL/ MILITARY SPECIFICATION NUMBER							BULK DENSITY	25 LB CU.FT.	
COMPOSITION	STEEL/ALUMINUM WITH EXTREMELY THIN TIN COATING						3	CHARACTERISTICS	
							FRAGMENTABILITY	FAIR	
							SEPARABILITY	EXCELLENT	
							COMPACTIBILITY	EXCELLENT	
							COMBUSTIBILITY	UNSATISFACTORY	
							TOXICITY	EXCELLENT	
							BIOLOGICAL DEGRADABILITY	UNSATISFACTORY	
							CHEMICAL DEGRADABILITY	UNSATISFACTORY	
							REUSABILITY	GOOD	
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS	
							THIS MATERIAL IS NOT SUITABLE FOR REUSE.		
4							DISPOSAL RATING SUMMARY		
METHOD OF DISPOSAL		PRE- PRO- CESS	OPER- ATIONAL RATING	ENVIRON- MENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO- NOMIC RANKING		
REUSE									
RECYCLE		A B	8.8	9.0	8.9	1			
PYROLYSIS		A C	4.0	7.4	5.7	4			
COMPOSTING		A C	3.6	7.4	5.5	5			
BALING		B	9.4	7.4	8.4	2			
INCINERATION		A	3.8	6.0	4.9	6			
SANITARY LANDFILL		B	7.2	6.8	7.0	3			
SEA DISPOSAL		B	5.6	3.8	4.7	7			
PRE-PROCESSES:							A - SEPARATION B - COMPACTION C - SHREDDING		
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METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD			
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7*	ON-BASE DISPOSAL/ RECLAMATION DATA						9*	OFF-BASE DISPOSAL/ RECYCLING DATA	
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD			
						SECONDARY MATERIAL HANDLER			
							*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							31	266		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY	METAL						MELTING TEMPERATURE	449(TIN) _{°F} 2800(STEEL) _{°F}		
NAME	VARIOUS METALS						COMBUSTION TEMPERATURE	-		
COMMON NAME (FORM)	AEROSOLS (SHEET)						HEAT OF COMBUSTION	-		
USES	PRESSURIZED CANS						MATERIAL DENSITY	488 $\frac{\text{LB}}{\text{CU.FT.}}$		
FEDERAL/ MILITARY SPECIFICATION NUMBER	PPP-C-96						BULK DENSITY	3 $\frac{\text{LB}}{\text{CU.FT.}}$		
COMPOSITION	ELECTROTIN PLATED STEEL						3	CHARACTERISTICS		
							FRAGMENTABILITY	UNSATISFACTORY		
							SEPARABILITY	EXCELLENT		
							COMPACTIBILITY	POOR		
							COMBUSTIBILITY	UNSATISFACTORY		
							TOXICITY	EXCELLENT		
							BIOLOGICAL DEGRADABILITY	UNSATISFACTORY		
							CHEMICAL DEGRADABILITY	UNSATISFACTORY		
							REUSABILITY	UNSATISFACTORY		
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
							THIS MATERIAL IS NOT SUITABLE FOR REUSE.			
4 DISPOSAL RATING SUMMARY										
METHOD OF DISPOSAL		PRE- PRO- CESS	OPER- ATIONAL RATING	ENVIRON- MENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *			
REUSE										
RECYCLE		A B	4.8	9.0	6.8	1				
PYROLYSIS		A	2.8	7.4	5.1	4				
COMPOSTING		A	2.4	7.4	4.9	5				
BALING		B	5.8	7.4	6.6	2				
INCINERATION		A	1.5	6.0	3.8	6				
SANITARY LANDFILL		B	3.6	6.8	5.2	3				
SEA DISPOSAL		B	3.2	3.8	3.5	7				
PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING										
6*	HANDLING DATA					8*	OFF-BASE DISPOSAL/ PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD				
						SECONDARY MATERIAL HANDLER				
						SECONDARY MATERIAL HANDLER				
7*	ON-BASE DISPOSAL/ RECLAMATION DATA					9*	OFF-BASE DISPOSAL/ RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD				
						SECONDARY MATERIAL HANDLER				
									*TO BE COMPLETED BY THE COGNIZANT OFFICER	

[illegible]

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							33	268	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	PAPER						MELTING TEMPERATURE	°F	
NAME	FIBERBOARD						COMBUSTION TEMPERATURE	440 °F	
COMMON NAME (FORM)	CORRUGATED AND SOLID BOARD OR CONTAINERBOARD (SHEET)						HEAT OF COMBUSTION	7043 BTU/LB	
USES	CONTAINERS						MATERIAL DENSITY	13 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER	PPP-B-640 PPP-B-636 PPP-B-676 PPP-B-1364						BULK DENSITY	1 LB/CU.FT.	
COMPOSITION	ANY ORGANIC FIBER, WOOD PULP, WOOD CHIP, OR BAGASSE						3	CHARACTERISTICS	
							FRAGMENTABILITY	GOOD	
							SEPARABILITY	GOOD	
							COMPACTIBILITY	EXCELLENT	
							COMBUSTIBILITY	EXCELLENT	
							TOXICITY	EXCELLENT	
							BIOLOGICAL DEGRADABILITY	GOOD	
							CHEMICAL DEGRADABILITY	EXCELLENT	
							REUSABILITY	EXCELLENT	
							6*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS	
4							DISPOSAL RATING SUMMARY		
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO-NOMIC RANKING *		
REUSE	A	8.5	10.0	9.3	1				
RECYCLE	A B	7.0	9.0	8.0	3				
PYROLYSIS	C	7.8	7.8	7.8	4				
COMPOSTING	A C	6.6	7.8	7.2	5				
BALING	B	9.4	7.8	8.6	2				
INCINERATION	A C	9.1	6.4	7.8	4				
SANITARY LANDFILL	B	6.9	7.0	7.0	6				
SEA DISPOSAL	B	5.0	4.2	4.6	7				
PRE-PROCESSES:							A - SEPARATION B - COMPACTION C - SHREDDING		
8*	HANDLING DATA						8*	OFF-BASE DISPOSAL/ PROCESSING DATA	
METHOD OF STORAGE/COLLECTION							DISPOSAL/PROCESSING METHOD		
							SECONDARY MATERIAL HANDLER		
7*	ON-BASE DISPOSAL/ RECLAMATION DATA						9*	OFF-BASE DISPOSAL/ RECYCLING DATA	
DISPOSAL/RECLAMATION METHOD							DISPOSAL/RECYCLING METHOD		
							SECONDARY MATERIAL HANDLER		
							*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE																																																																	
							MATERIAL NO.	REFERENCE PG.	OTHER																																																															
							34	269																																																																
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES																																																																
CATEGORY	PAPER						MELTING TEMPERATURE	-																																																																
NAME	FIBERBOARD						COMBUSTION TEMPERATURE	500																																																																
COMMON NAME (FORM)	WAX-IMPREGNATED CORRUGATED BOARD (SHEET)						HEAT OF COMBUSTION	7703 BTU/LB																																																																
USES	CONTAINERS						MATERIAL DENSITY	47 LB/CU.FT.																																																																
FEDERAL/MILITARY SPECIFICATION NUMBER	PPP-B-1183 MIL-C-3955						BULK DENSITY	2 LB/CU.FT.																																																																
COMPOSITION	KRAFT PAPER IMPREGNATED WITH WATER AND GREASE RESISTANT COATINGS (VARIETY 4)						3	CHARACTERISTICS																																																																
4 DISPOSAL RATING SUMMARY <table border="1"> <thead> <tr> <th>METHOD OF DISPOSAL</th> <th>PRE-PROCESS</th> <th>OPERATIONAL RATING</th> <th>ENVIRONMENTAL RATING</th> <th>TOTAL DISPOSAL RATING</th> <th>TOTAL DISPOSAL RANKING</th> <th>ECONOMIC RANKING *</th> </tr> </thead> <tbody> <tr> <td>REUSE</td> <td>A</td> <td>8.5</td> <td>10.0</td> <td>9.3</td> <td>1</td> <td></td> </tr> <tr> <td>RECYCLE</td> <td>A B</td> <td>5.2</td> <td>9.0</td> <td>7.1</td> <td>4</td> <td></td> </tr> <tr> <td>PYROLYSIS</td> <td>A C</td> <td>7.8</td> <td>7.8</td> <td>7.8</td> <td>3</td> <td></td> </tr> <tr> <td>COMPOSTING</td> <td>A C</td> <td>6.2</td> <td>7.8</td> <td>7.0</td> <td>5</td> <td></td> </tr> <tr> <td>BALING</td> <td>B</td> <td>9.4</td> <td>7.8</td> <td>8.6</td> <td>2</td> <td></td> </tr> <tr> <td>INCINERATION</td> <td>A C</td> <td>9.1</td> <td>6.4</td> <td>7.8</td> <td>3</td> <td></td> </tr> <tr> <td>SANITARY LANDFILL</td> <td>B</td> <td>7.2</td> <td>7.0</td> <td>7.1</td> <td>4</td> <td></td> </tr> <tr> <td>SEA DISPOSAL</td> <td>B</td> <td>5.0</td> <td>4.2</td> <td>4.6</td> <td>6</td> <td></td> </tr> </tbody> </table> <p>PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING</p>							METHOD OF DISPOSAL	PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *	REUSE	A	8.5	10.0	9.3	1		RECYCLE	A B	5.2	9.0	7.1	4		PYROLYSIS	A C	7.8	7.8	7.8	3		COMPOSTING	A C	6.2	7.8	7.0	5		BALING	B	9.4	7.8	8.6	2		INCINERATION	A C	9.1	6.4	7.8	3		SANITARY LANDFILL	B	7.2	7.0	7.1	4		SEA DISPOSAL	B	5.0	4.2	4.6	6		FRAGMENTABILITY	GOOD	
							METHOD OF DISPOSAL	PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *																																																											
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* TO BE COMPLETED BY THE COGNIZANT OFFICER

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							35	270	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY		PAPER					MELTING TEMPERATURE		OF
NAME		PAPER					COMBUSTION TEMPERATURE		300 OF
COMMON NAME (FORM)		BAG, SACK (SHEET)					HEAT OF COMBUSTION		7706 BTU/LB
USES		BAGS, SACKS					MATERIAL DENSITY		40 LB/CU.FT.
FEDERAL/MILITARY SPECIFICATION NUMBER		PPP-S-30 UU-B-36 UU-S-48					BULK DENSITY		8 LB/CU.FT.
COMPOSITION		SULPHATE PULP (UNBLEACHED SULPHATE OR KRAFT PAPER)					3 CHARACTERISTICS		
							FRAGMENTABILITY		GOOD
4		DISPOSAL RATING SUMMARY					SEPARABILITY		POOR
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECOLOGICAL RANKING	COMPACTIBILITY	
REUSE		A	5.5	10.0	7.8	1		EXCELLENT	
RECYCLE		A B	5.2	9.0	7.1	5		COMBUSTIBILITY	
PYROLYSIS		A C	7.4	7.8	7.6	3		EXCELLENT	
COMPOSTING		A C	6.2	7.8	7.0	6		TOXICITY	
BALING		B	7.4	7.8	7.6	3		EXCELLENT	
INCINERATION		A C	9.0	6.4	7.7	2		BIOLOGICAL DEGRADABILITY	
SANITARY LANDFILL		B	7.6	7.0	7.3	4		GOOD	
SEA DISPOSAL		B	5.8	4.2	5.1	7		CHEMICAL DEGRADABILITY	
PRE-PROCESSES:		A - SEPARATION B - COMPACTION C - SHREDDING					REUSABILITY		GOOD
							5* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
6* HANDLING DATA		8* OFF-BASE DISPOSAL/ PROCESSING DATA					10* NOTES AND COMMENTS		
METHOD OF STORAGE/COLLECTION		DISPOSAL/PROCESSING METHOD							
		SECONDARY MATERIAL HANDLER							
7* ON-BASE DISPOSAL/ RECLAMATION DATA		9* OFF-BASE DISPOSAL/ RECYCLING DATA							
DISPOSAL/RECLAMATION METHOD		DISPOSAL/RECYCLING METHOD							
		SECONDARY MATERIAL HANDLER							
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SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE																																																																	
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							36	271																																																																
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES																																																																
CATEGORY	PAPER						MELTING TEMPERATURE	- °F																																																																
NAME	PAPER						COMBUSTION TEMPERATURE	225 °F																																																																
COMMON NAME (FORM)	COATED, IMPREGNATED (SHEET)						HEAT OF COMBUSTION	7706 BTU/LB																																																																
USES	WRAPPING, BAGS						MATERIAL DENSITY	47 LB/CU.FT.																																																																
FEDERAL/MILITARY SPECIFICATION NUMBER	MIL-P-20293 UU-P-134						BULK DENSITY	12 LB/CU.FT.																																																																
COMPOSITION	ASPHALT-IMPREGNATED KRAFT PAPER						3 CHARACTERISTICS																																																																	
4 DISPOSAL RATING SUMMARY <table border="1"> <thead> <tr> <th>METHOD OF DISPOSAL</th> <th>PRE-PROCESS</th> <th>OPERATIONAL RATING</th> <th>ENVIRONMENTAL RATING</th> <th>TOTAL DISPOSAL RATING</th> <th>TOTAL DISPOSAL RANKING</th> <th>ECONOMIC RANKING *</th> </tr> </thead> <tbody> <tr> <td>REUSE</td> <td>A</td> <td>8.5</td> <td>10.0</td> <td>9.3</td> <td>1</td> <td></td> </tr> <tr> <td>RECYCLE</td> <td>A B</td> <td>5.2</td> <td>9.0</td> <td>7.1</td> <td>4</td> <td></td> </tr> <tr> <td>PYROLYSIS</td> <td>A C</td> <td>7.8</td> <td>7.8</td> <td>7.8</td> <td>2</td> <td></td> </tr> <tr> <td>COMPOSTING</td> <td>A C</td> <td>6.2</td> <td>7.8</td> <td>7.0</td> <td>5</td> <td></td> </tr> <tr> <td>BALING</td> <td>B</td> <td>7.0</td> <td>7.8</td> <td>7.4</td> <td>3</td> <td></td> </tr> <tr> <td>INCINERATION</td> <td>A C</td> <td>9.1</td> <td>6.4</td> <td>7.8</td> <td>2</td> <td></td> </tr> <tr> <td>SANITARY LANDFILL</td> <td>B</td> <td>7.2</td> <td>7.0</td> <td>7.1</td> <td>4</td> <td></td> </tr> <tr> <td>SEA DISPOSAL</td> <td>B</td> <td>5.6</td> <td>4.2</td> <td>4.9</td> <td>6</td> <td></td> </tr> </tbody> </table> PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING							METHOD OF DISPOSAL	PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *	REUSE	A	8.5	10.0	9.3	1		RECYCLE	A B	5.2	9.0	7.1	4		PYROLYSIS	A C	7.8	7.8	7.8	2		COMPOSTING	A C	6.2	7.8	7.0	5		BALING	B	7.0	7.8	7.4	3		INCINERATION	A C	9.1	6.4	7.8	2		SANITARY LANDFILL	B	7.2	7.0	7.1	4		SEA DISPOSAL	B	5.6	4.2	4.9	6		FRAGMENTABILITY	GOOD	
							METHOD OF DISPOSAL	PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *																																																											
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SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							37	272		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY		PAPER					MELTING TEMPERATURE		0 _F	
NAME		PAPER					COMBUSTION TEMPERATURE		150 0 _F	
COMMON NAME (FORM)		CONVERTING, ENVELOPE (SHEET)					HEAT OF COMBUSTION		6088 BTU/LB	
USES		ENVELOPES, TAPES					MATERIAL DENSITY		51 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER		PPP-T-45					BULK DENSITY		51 LB/CU.FT.	
COMPOSITION		KRAFT PAPER WITH ASPHALT LAMINATION					3 CHARACTERISTICS			
							FRAGMENTABILITY		EXCELLENT	
4		DISPOSAL RATING SUMMARY					SEPARABILITY		GOOD	
METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *	COMPACTIBILITY		EXCELLENT	
DISPOSAL	PRE-PROCESS						COMBUSTIBILITY		EXCELLENT	
REUSE	A	1.5	10.0	5.8	7		TOXICITY		EXCELLENT	
RECYCLE	A B	3.6	9.0	6.3	6		BIOLOGICAL DEGRADABILITY		POOR	
PYROLYSIS	A	6.6	7.8	7.2	3		CHEMICAL DEGRADABILITY		POOR	
COMPOSTING	A	5.2	7.8	6.5	5		REUSABILITY		UNSATISFACTORY	
BALING	B	6.4	7.8	7.1	4		5* SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS			
INCINERATION	A	9.1	6.4	7.8	1					
SANITARY LANDFILL	B	7.7	7.0	7.4	2					
SEA DISPOSAL	B	5.8	4.2	5.0	8					
PRE-PROCESSES:		A - SEPARATION B - COMPACTION C - SHREDDING								
6*	HANDLING DATA					8*	OFF-BASE DISPOSAL/PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD				
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SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE					
							MATERIAL NO.	REFERENCE PG.	OTHER			
							38	273				
1		MATERIAL DESCRIPTION					2		CHEMICAL PROPERTIES			
CATEGORY		PAPER					MELTING TEMPERATURE		°F			
NAME		PAPER					COMBUSTION TEMPERATURE		150 °F			
COMMON NAME (FORM)		NEWSPRINT (SHEET, SHREDS)					HEAT OF COMBUSTION		7974 BTU/LB			
USES		WRAPPING, DUNNAGE					MATERIAL DENSITY		42 LB/CU.FT.			
FEDERAL/MILITARY SPECIFICATION NUMBER							BULK DENSITY		21 LB/CU.FT.			
COMPOSITION		GROUND WOOD PULP (75%) CHEMICAL PULP (25%)					3.		CHARACTERISTICS			
							FRAGMENTABILITY		EXCELLENT			
4		DISPOSAL RATING SUMMARY					SEPARABILITY		UNSATISFACTORY			
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	COMPACTIBILITY		EXCELLENT		
REUSE		A	3.5	10.0	6.8	5		COMBUSTIBILITY		EXCELLENT		
RECYCLE		A/B	3.8	9.0	6.4	6		TOXICITY		EXCELLENT		
PYROLYSIS		A	7.4	7.8	7.6	2		BIOLOGICAL DEGRADABILITY		GOOD		
COMPOSTING		A	6.2	7.8	7.0	4		CHEMICAL DEGRADABILITY		EXCELLENT		
BALING		B	6.8	7.8	7.3	3		REUSABILITY		FAIR		
INCINERATION		A	9.2	6.4	7.8	1		6.		SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
SANITARY LANDFILL		B	8.2	7.0	7.6	2						
SEA DISPOSAL		B	6.2	4.2	5.2	7						
PRE-PROCESSES:		A - SEPARATION B - COMPACTION C - SHREDDING										
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						SECONDARY MATERIAL HANDLER						
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DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD						
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										*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							39	274		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY		PAPER					MELTING TEMPERATURE		°F	
NAME		PAPER					COMBUSTION TEMPERATURE		350 °F	
COMMON NAME (FORM)		PULP (MOLDED)					HEAT OF COMBUSTION		7341 BTU/LB	
USES		TRAYS					MATERIAL DENSITY		38 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER							BULK DENSITY		38 LB/CU.FT.	
COMPOSITION		MECHANICAL WOOD PULP OR GROUNDWOOD					3	CHARACTERISTICS		
							FRAGMENTABILITY		GOOD	
4		DISPOSAL RATING SUMMARY					SEPARABILITY		UNSATISFACTORY	
METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *	COMPACTIBILITY		EXCELLENT	
DISPOSAL	PRE-PROCESS						COMBUSTIBILITY		GOOD	
REUSE	A	4.5	10.0	7.3	3		TOXICITY		EXCELLENT	
RECYCLE	A B	5.0	9.0	7.0	5		BIOLOGICAL DEGRADABILITY		GOOD	
PYROLYSIS	A C	7.0	7.8	7.4	2		CHEMICAL DEGRADABILITY		EXCELLENT	
COMPOSTING	A C	5.8	7.8	6.8	6		REUSABILITY		GOOD	
BALING	B	5.8	7.8	6.8	6		5°		SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS	
INCINERATION	A	7.8	6.4	7.1	4		THIS MATERIAL IS NOT SUITABLE FOR REUSE IF ORIGINALLY USED FOR FOOD.			
SANITARY LANDFILL	B	8.0	7.0	7.5	1					
SEA DISPOSAL	B	6.2	4.2	5.2	7					
PRE-PROCESSES:		A - SEPARATION B - COMPACTION C - SHREDDING								
6°	HANDLING DATA					8°	OFF-BASE DISPOSAL/ PROCESSING DATA		10°	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD				
						SECONDARY MATERIAL HANDLER				
7°	ON-BASE DISPOSAL/ RECLAMATION DATA					9°	OFF-BASE DISPOSAL/ RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD				
						SECONDARY MATERIAL HANDLER				
								*TO BE COMPLETED BY THE COGNIZANT OFFICER		

[illegible]

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE					
							MATERIAL NO.	REFERENCE PG.	OTHER			
							41	276				
1		MATERIAL DESCRIPTION					2		CHEMICAL PROPERTIES			
CATEGORY		PAPER					MELTING TEMPERATURE		-			
NAME		PAPER					COMBUSTION TEMPERATURE		440			
COMMON NAME (FORM)		VCI TREATED PACKAGING MATERIALS (SHEET)					HEAT OF COMBUSTION		7706 BTU/LB			
USES		CONTAINERS					MATERIAL DENSITY		40 LB/CU.FT.			
FEDERAL/MILITARY SPECIFICATION NUMBER		MIL-P-3420					BULK DENSITY		2 LB/CU.FT.			
COMPOSITION		FLAT KRAFT PAPER COATED OR IMPREGNATED WITH CORROSION INHIBITORS					3		CHARACTERISTICS			
							FRAGMENTABILITY		GOOD			
4		DISPOSAL RATING SUMMARY					SEPARABILITY		GOOD			
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING*	COMPACTIBILITY		EXCELLENT		
REUSE		A	8.0	10.0	9.0	1		COMBUSTIBILITY		EXCELLENT		
RECYCLE		B	5.2	9.0	7.1	4		TOXICITY		EXCELLENT (SEE PRECAUTIONS)		
PYROLYSIS		C	7.8	7.8	7.8	3		BIOLOGICAL DEGRADABILITY		GOOD		
COMPOSTING		A	6.2	7.8	7.0	5		CHEMICAL DEGRADABILITY		EXCELLENT		
BALING		B	9.4	7.8	8.6	2		REUSABILITY		EXCELLENT		
INCINERATION		A	9.1	6.4	7.8	3		5*		SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS		
SANITARY LANDFILL		B	7.2	7.0	7.1	4		HANDS WHICH COME IN CONTACT WITH VCI SHOULD BE THOROUGHLY WASHED BEFORE TOUCHING FOOD.				
SEA DISPOSAL		B	5.9	4.2	5.0	6						
PRE-PROCESSES:												
A - SEPARATION B - COMPACTION C - SHREDDING												
6*		HANDLING DATA				8*		OFF-BASE DISPOSAL/ PROCESSING DATA		10*		NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD						
						SECONDARY MATERIAL HANDLER						
7*		ON-BASE DISPOSAL/ RECLAMATION DATA				9*		OFF-BASE DISPOSAL/ RECYCLING DATA				
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD						
						SECONDARY MATERIAL HANDLER						

*TO BE COMPLETED BY THE COGNIZANT OFFICER

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							43	278		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY		PAPER					MELTING TEMPERATURE		- °F	
NAME		PAPER					COMBUSTION TEMPERATURE		500 °F	
COMMON NAME (FORM)		WAX PAPER (SHREDS)					HEAT OF COMBUSTION		11,327 BTU/LB	
USES		WRAPPING, DUNNAGE					MATERIAL DENSITY		47 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER							BULK DENSITY		47 LB/CU.FT.	
COMPOSITION		KRAFT PAPER IMPREGNATED WITH WAX COATING					3		CHARACTERISTICS	
							FRAGMENTABILITY		EXCELLENT	
4		DISPOSAL RATING SUMMARY					SEPARABILITY		POOR	
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	COMPACTIBILITY	EXCELLENT	
REUSE		A	4.0	10.0	7.0	4		COMBUSTIBILITY	EXCELLENT	
RECYCLE		A B	3.0	9.0	6.0	6		TOXICITY	EXCELLENT	
PYROLYSIS		A	6.4	7.8	7.1	3		BIOLOGICAL DEGRADABILITY	FAIR	
COMPOSTING		A	5.2	7.8	6.5	5		CHEMICAL DEGRADABILITY	GOOD	
BALING		B	6.4	7.8	7.1	3		REUSABILITY	FAIR	
INCINERATION		A	8.8	6.4	7.6	1		5* SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS		
SANITARY LANDFILL		B	7.3	7.0	7.2	2				
SEA DISPOSAL		B	5.3	4.2	4.8	7				
PRE-PROCESSES:		A - SEPARATION B - COMPACTION C - SHREDDING								
6*	HANDLING DATA					8*	OFF-BASE DISPOSAL/PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION					DISPOSAL/PROCESSING METHOD					
					SECONDARY MATERIAL HANDLER					
7*	ON-BASE DISPOSAL/RECLAMATION DATA					9*	OFF-BASE DISPOSAL/RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD					DISPOSAL/RECYCLING METHOD					
					SECONDARY MATERIAL HANDLER					

*TO BE COMPLETED BY THE COGNIZANT OFFICER

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							44	279		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY	PAPER						MELTING TEMPERATURE	°F		
NAME	PAPER						COMBUSTION TEMPERATURE	300 °F		
COMMON NAME (FORM)	WRAPPING (SHEET)						HEAT OF COMBUSTION	7706 $\frac{\text{BTU}}{\text{LB}}$		
USES	WRAPPING, BAGS						MATERIAL DENSITY	40 $\frac{\text{LB}}{\text{CU.FT.}}$		
FEDERAL/ MILITARY SPECIFICATION NUMBER	UU-P-268						BULK DENSITY	10 $\frac{\text{LB}}{\text{CU.FT.}}$		
COMPOSITION	UNTREATED KRAFT PAPER						3	CHARACTERISTICS		
							FRAGMENTABILITY	GOOD		
							SEPARABILITY	POOR		
							COMPACTIBILITY	EXCELLENT		
							COMBUSTIBILITY	EXCELLENT		
							TOXICITY	EXCELLENT		
							BIOLOGICAL DEGRADABILITY	GOOD		
							CHEMICAL DEGRADABILITY	EXCELLENT		
							REUSABILITY	FAIR		
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
4							DISPOSAL RATING SUMMARY			
METHOD OF DISPOSAL		PRE- PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING			
REUSE		A	4.5	10.0	7.3	5				
RECYCLE		A B	5.8	9.0	7.4	4				
PYROLYSIS		A C	7.4	7.8	7.6	2				
COMPOSTING		A C	6.2	7.8	7.0	6				
BALING		B	7.0	7.8	7.4	4				
INCINERATION		A C	9.0	6.4	7.7	1				
SANITARY LANDFILL		B	8.0	7.0	7.5	3				
SEA DISPOSAL		B	6.2	4.2	5.2	7				
PRE-PROCESSES:							A - SEPARATION B - COMPACTION C - SHREDDING			
6*	HANDLING DATA					8*	OFF-BASE DISPOSAL/ PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION					DISPOSAL/PROCESSING METHOD					
					SECONDARY MATERIAL HANDLER					
7*	ON-BASE DISPOSAL/ RECLAMATION DATA					9*	OFF-BASE DISPOSAL/ RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD					DISPOSAL/RECYCLING METHOD					
					SECONDARY MATERIAL HANDLER					
										*TO BE COMPLETED BY THE COGNIZANT OFFICER

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							45	280	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY		PAPER					MELTING TEMPERATURE		OF
NAME		PAPERBOARD					COMBUSTION TEMPERATURE		440 OF
COMMON NAME (FORM)		CHIPBOARD, BOXBOARD (SHEET)					HEAT OF COMBUSTION		7572 BTU LB
USES		BOXES					MATERIAL DENSITY		41 LB CU.FT.
FEDERAL/MILITARY SPECIFICATION NUMBER		UU-C-282 PPP-B-566					BULK DENSITY		2 LB CU.FT.
COMPOSITION		100% RECLAIMED PLAIN FIBER NEWS, MIXED, CORRUGATED					3 CHARACTERISTICS		
							FRAGMENTABILITY		GOOD
4		DISPOSAL RATING SUMMARY					SEPARABILITY		POOR
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	COMPACTIBILITY	
REUSE		A	6.5	10.0	8.3	2		EXCELLENT	
RECYCLE		A B	7.0	9.0	8.0	3		EXCELLENT	
PYROLYSIS		A C	7.4	7.8	7.6	5		EXCELLENT	
COMPOSTING		A C	6.2	7.8	7.0	7		EXCELLENT	
BALING		B	9.4	7.8	8.6	1		EXCELLENT	
INCINERATION		A C	9.0	6.4	7.7	4		EXCELLENT	
SANITARY LANDFILL		B	8.0	7.0	7.5	6		EXCELLENT	
SEA DISPOSAL		B	6.2	4.2	5.2	8		EXCELLENT	
PRE-PROCESSES:		A - SEPARATION B - COMPACTION C - SHREDDING					5* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
6* HANDLING DATA		8* OFF-BASE DISPOSAL/ PROCESSING DATA					10* NOTES AND COMMENTS		
METHOD OF STORAGE/COLLECTION		DISPOSAL/PROCESSING METHOD							
		SECONDARY MATERIAL HANDLER							
7* ON-BASE DISPOSAL/ RECLAMATION DATA		9* OFF-BASE DISPOSAL/ RECYCLING DATA							
DISPOSAL/RECLAMATION METHOD		DISPOSAL/RECYCLING METHOD							
		SECONDARY MATERIAL HANDLER					*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							46	281		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY		PAPER					MELTING TEMPERATURE		0 F	
NAME		PAPERBOARD					COMBUSTION TEMPERATURE		700 0 F	
COMMON NAME (FORM)		SPIRALLY WOUND FIBER CAN (TUBE)					HEAT OF COMBUSTION		8800 BTU/LB	
USES		CAN					MATERIAL DENSITY		52 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER		MIL-C-2439					BULK DENSITY		2 LB/CU.FT.	
COMPOSITION		(TYPE I, CR B, STYLE A, CAN) ADHESIVES, BARRIER MATERIAL AMMUNITION CONTAINERBOARD AL FOIL, DUPLEX AND ASPHALT IMPREGNATED KRAFT					3		CHARACTERISTICS	
							FRAGMENTABILITY		FAIR	
4		DISPOSAL RATING SUMMARY					SEPARABILITY		GOOD	
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECOLOGIC RANKING	COMPACTIBILITY		EXCELLENT
REUSE		A	8.5	10.0	9.3	1		COMBUSTIBILITY		EXCELLENT
RECYCLE		A B	3.4	9.0	6.2	7		TOXICITY		EXCELLENT
PYROLYSIS		A C	6.4	7.8	7.1	4		BIOLOGICAL DEGRADABILITY		POOR
COMPOSTING		A C	4.8	7.8	6.3	6		CHEMICAL DEGRADABILITY		GOOD
BALING		B	8.8	7.8	8.3	2		REUSABILITY		EXCELLENT
INCINERATION		A C	8.4	6.4	7.4	3		5*		SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS
SANITARY LANDFILL		B	6.8	6.8	6.8	5		REUSE POSSIBLE ONLY WITH TELESCOPING STYLE CAN.		
SEA DISPOSAL		B	5.2	4.2	4.7	8				
PRE-PROCESSES:										
A = SEPARATION B = COMPACTION C = SHREDDING										
6*	HANDLING DATA					8*	OFF-BASE DISPOSAL/PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION					DISPOSAL/PROCESSING METHOD					
					SECONDARY MATERIAL HANDLER					
7*	ON-BASE DISPOSAL/RECLAMATION DATA					9*	OFF-BASE DISPOSAL/RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD					DISPOSAL/RECYCLING METHOD					
					SECONDARY MATERIAL HANDLER			*TO BE COMPLETED BY THE COGNIZANT OFFICER		

[illegible]

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							48	283	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	PAPER						MELTING TEMPERATURE	- °F	
NAME	PAPERBOARD/METAL						COMBUSTION TEMPERATURE	440 °F	
COMMON NAME (FORM)	METAL-EDGED PAPERBOARD (SHEET)						HEAT OF COMBUSTION	7043 BTU/LB	
USES	BOXES						MATERIAL DENSITY	48 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER	PPP-B-665						BULK DENSITY	1 LB/CU.FT.	
COMPOSITION	(STYLES A-E) AT LEAST 75% RECLAIMED FIBER CONTENT. REMAINDER KRAFT PAPER. STEEL METAL STAYS.						3	CHARACTERISTICS	
							FRAGMENTABILITY	GOOD	
							SEPARABILITY	GOOD	
							COMPACTIBILITY	EXCELLENT	
							COMBUSTIBILITY	EXCELLENT	
							TOXICITY	EXCELLENT	
							BIOLOGICAL DEGRADABILITY	FAIR	
							CHEMICAL DEGRADABILITY	EXCELLENT	
							REUSABILITY	EXCELLENT	
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS	
4							DISPOSAL RATING SUMMARY		
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECOLOGICAL RANKING		
REUSE		A	8.5	10.0	9.3	1			
RECYCLE		A B	5.8	9.0	7.4	5			
PYROLYSIS		A C	7.4	7.8	7.6	3			
COMPOSTING		A C	4.2	7.8	6.0	7			
BALING		B	8.8	7.8	8.3	2			
INCINERATION		A C	8.6	6.4	7.5	4			
SANITARY LANDFILL		B	6.6	7.0	6.8	6			
SEA DISPOSAL		B	5.0	4.2	4.6	8			
PRE-PROCESSES:							A = SEPARATION B = COMPACTION C = SHREDDING		
6*	HANDLING DATA				8*	OFF-BASE DISPOSAL/ PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION					DISPOSAL/PROCESSING METHOD				
					SECONDARY MATERIAL HANDLER				
7*	ON-BASE DISPOSAL/ RECLAMATION DATA				9*	OFF-BASE DISPOSAL/ RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD					DISPOSAL/RECYCLING METHOD				
					SECONDARY MATERIAL HANDLER				
							*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							49	284	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	PAPER						MELTING TEMPERATURE	°F	
NAME	PAPERBOARD/METAL						COMBUSTION TEMPERATURE	440 °F	
COMMON NAME (FORM)	METAL EDGED PAPERBOARD (SHEET)						HEAT OF COMBUSTION	7043 BTU/LB	
USES	DRUMS, TUBES						MATERIAL DENSITY	48 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER	PPP-D-723						BULK DENSITY	3 LB/CU.FT.	
COMPOSITION	AT LEAST 40% RECLAIMED FIBERS. REMAINDER-VIRGIN KRAFT PAPER, LOW CARBON STEEL, AL BARRIER BOARD						3	CHARACTERISTICS	
							FRAGMENTABILITY	GOOD	
							SEPARABILITY	GOOD	
							COMPACTIBILITY	EXCELLENT	
							COMBUSTIBILITY	EXCELLENT	
							TOXICITY	EXCELLENT	
							BIOLOGICAL DEGRADABILITY	FAIR	
							CHEMICAL DEGRADABILITY	EXCELLENT	
							REUSABILITY	EXCELLENT	
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS	
4	DISPOSAL RATING SUMMARY								
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO-NOMIC RANKING		
REUSE		A	8.5	10.0	9.3	1			
RECYCLE		A B	5.8	9.0	7.4	5			
PYROLYSIS		A C	7.4	7.8	7.6	3			
COMPOSTING		A C	4.2	7.8	6.0	7			
BAILING		B	8.8	7.8	8.3	2			
INCINERATION		A C	8.6	6.4	7.5	4			
SANITARY LANDFILL		B	6.6	7.0	6.8	6			
SEA DISPOSAL		B	5.0	4.2	4.6	8			
PRE-PROCESSES:									
A - SEPARATION B - COMPACTION C - SHREDDING									
6*	HANDLING DATA						8*	OFF-BASE DISPOSAL/ PROCESSING DATA	
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD			
						SECONDARY MATERIAL HANDLER			
7*	ON-BASE DISPOSAL/ RECLAMATION DATA						9*	OFF-BASE DISPOSAL/ RECYCLING DATA	
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD			
						SECONDARY MATERIAL HANDLER			
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							50	285		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY		PAPER					MELTING TEMPERATURE		OF	
NAME		FIBERBOARD/WOOD					COMBUSTION TEMPERATURE		523 OF	
COMMON NAME (FORM)		WOOD-CLEATED FIBERBOARD (SHEET)					HEAT OF COMBUSTION		7841 BTU/LB	
USES		BOXES					MATERIAL DENSITY		29 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER		PPP-B-591					BULK DENSITY		2 LB/CU.FT.	
COMPOSITION		VIRGIN OR RECLAIMED FIBERS, DOUGLAS FIR CLEATS, STEEL NAILS OR STAPLES					3 CHARACTERISTICS			
							FRAGMENTABILITY		FAIR	
4		DISPOSAL RATING SUMMARY					SEPARABILITY		GOOD	
METHOD OF		OPERATIONAL RATING		ENVIRONMENTAL RATING		TOTAL DISPOSAL RATING		TOTAL DISPOSAL RANKING		
DISPOSAL		PRE-PROCESS						ECONOMIC RANKING		
REUSE		A		8.5		10.0		9.3		
RECYCLE		A B		4.0		9.0		6.5		
PYROLYSIS		A C		7.6		7.8		7.7		
COMPOSTING		A C		6.2		7.8		7.0		
BALING		B		8.8		7.8		8.3		
INCINERATION		A C		7.9		6.4		7.2		
SANITARY LANDFILL		B		6.7		7.2		7.0		
SEA DISPOSAL		B		5.2		4.2		4.7		
PRE-PROCESSES:		A - SEPARATION		B - COMPACTION		C - SHREDDING				
5*		SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS								
6*		HANDLING DATA					8*		OFF-BASE DISPOSAL/PROCESSING DATA	
METHOD OF STORAGE/COLLECTION							DISPOSAL/PROCESSING METHOD		10*	
							SECONDARY MATERIAL HANDLER			
7*		ON-BASE DISPOSAL/RECLAMATION DATA					9*		OFF-BASE DISPOSAL/RECYCLING DATA	
DISPOSAL/RECLAMATION METHOD							DISPOSAL/RECYCLING METHOD			
							SECONDARY MATERIAL HANDLER			

*TO BE COMPLETED BY THE COGNIZANT OFFICER

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							51	286		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY		PLASTIC					MELTING TEMPERATURE		300-500 °F	
NAME		ACRYLONITRILE, BUTADIENE, STYRENE					COMBUSTION TEMPERATURE		700-800 °F	
COMMON NAME (FORM)		ABS (SOLID STOCK, SHEET)					HEAT OF COMBUSTION		8830 BTU/LB	
USES		TRAYS, CONTAINERS					MATERIAL DENSITY		63.85-67.39 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER		L-P-1183					BULK DENSITY		5-7 LB/CU.FT.	
COMPOSITION							3	CHARACTERISTICS		
							FRAGMENTABILITY		GOOD	
							SEPARABILITY		FAIR	
							COMPACTIBILITY		GOOD	
							COMBUSTIBILITY		FAIR	
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)	
							BIOLOGICAL DEGRADABILITY		POOR	
							CHEMICAL DEGRADABILITY		POOR	
							REUSABILITY		GOOD	
4	DISPOSAL RATING SUMMARY						6*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING*	PRODUCES HARMFUL GASES WHEN INCINERATED			
DISPOSAL	PRE-PROCESS									
REUSE	A	4.5	10.0	7.3	1					
RECYCLE	A B	4.4	9.0	6.7	3					
PYROLYSIS	A C	4.8	7.8	6.3	5					
COMPOSTING	A C	4.2	7.8	6.0	6					
BALING	B	6.6	7.8	7.2	2					
INCINERATION	A C	6.7	6.2	6.5	4					
SANITARY LANDFILL	B	6.0	7.4	6.7	3					
SEA DISPOSAL	B	3.3	4.2	2.8	7					
PRE-PROCESSES:		A - SEPARATION B - COMPACTION C - SHREDDING								
8*	HANDLING DATA			8*	OFF-BASE DISPOSAL/ PROCESSING DATA			10*	NOTES AND COMMENTS	
METHOD OF STORAGE/COLLECTION				DISPOSAL/PROCESSING METHOD						
				SECONDARY MATERIAL HANDLER						
7*	ON-BASE DISPOSAL/ RECLAMATION DATA			8*	OFF-BASE DISPOSAL/ RECYCLING DATA					
DISPOSAL/RECLAMATION METHOD				DISPOSAL/RECYCLING METHOD						
				SECONDARY MATERIAL HANDLER						
								*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							52	287		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY	PLASTIC						MELTING TEMPERATURE	200-350 °F		
NAME	CELLULOSICS						COMBUSTION TEMPERATURE	800 °F		
COMMON NAME (FORM)	CELLOPHANE (FILM)						HEAT OF COMBUSTION	1600 BTU/LB		
USES	WRAPPING, BAGS						MATERIAL DENSITY	74.88-98.72 LB/CU.FT.		
FEDERAL/MILITARY SPECIFICATION NUMBER	L-C-110 PPP-B-15						BULK DENSITY	70 LB/CU.FT.		
COMPOSITION							3	CHARACTERISTICS		
							FRAGMENTABILITY	EXCELLENT		
							SEPARABILITY	POOR		
							COMPACTIBILITY	FAIR		
							COMBUSTIBILITY	GOOD		
							TOXICITY	EXCELLENT (SEE PRECAUTIONS)		
							BIOLOGICAL DEGRADABILITY	POOR		
							CHEMICAL DEGRADABILITY	POOR		
							REUSABILITY	UNSATISFACTORY		
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
							PRODUCES HARMFUL GASES WHEN INCINERATED			
DISPOSAL RATING SUMMARY										
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *			
REUSE		A	2.0	10.0	6.0	6				
RECYCLE		A B	3.6	9.0	6.3	4				
PYROLYSIS		A C	4.8	7.8	6.2	5				
COMPOSTING		A C	4.0	7.8	5.9	7				
BAILING		B	5.6	7.8	6.7	3				
INCINERATION		A C	7.7	6.2	7.0	1				
SANITARY LANDFILL		B	6.1	7.4	6.8	2				
SEA DISPOSAL		B	4.6	4.2	4.4	8				
PRE-PROCESSES:							A - SEPARATION B - COMPACTION C - SHREDDING			
6*	HANDLING DATA					8*	OFF-BASE DISPOSAL/ PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD				
						SECONDARY MATERIAL HANDLER				
						SECONDARY MATERIAL HANDLER				
7*	ON-BASE DISPOSAL/ RECLAMATION DATA					9*	OFF-BASE DISPOSAL/ RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD				
						SECONDARY MATERIAL HANDLER				
								*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							53	288		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY	PLASTIC						MELTING TEMPERATURE	340-500 °F		
NAME	CELLULOSICS						COMBUSTION TEMPERATURE	840 °F		
COMMON NAME (FORM)	CELLULOSE ACETATE (SHEET, FILM)						HEAT OF COMBUSTION	15770 BTU/LB		
USES	WRAPPING						MATERIAL DENSITY	71.76-82.37 LB/CU.FT.		
FEDERAL/MILITARY SPECIFICATION NUMBER	L-P-504						BULK DENSITY	50-70 LB/CU.FT.		
COMPOSITION							3	CHARACTERISTICS		
							FRAGMENTABILITY	EXCELLENT		
							SEPARABILITY	POOR		
							COMPACTIBILITY	FAIR		
							COMBUSTIBILITY	POOR		
							TOXICITY	EXCELLENT (SEE PRECAUTIONS)		
							BIOLOGICAL DEGRADABILITY	POOR		
							CHEMICAL DEGRADABILITY	POOR		
							REUSABILITY	UNSATISFACTORY		
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
							PRODUCES HARMFUL GASES WHEN INCINERATED			
4 DISPOSAL RATING SUMMARY										
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING			
REUSE	A	2.0	10.0	6.0	5					
RECYCLE	A B	3.6	9.0	6.3	3					
PYROLYSIS	A C	4.6	7.8	6.2	4					
COMPOSTING	A C	4.0	7.8	5.9	6					
BALING	B	5.6	7.8	6.7	1					
INCINERATION	A C	5.7	6.2	6.0	5					
SANITARY LANDFILL	B	5.7	7.4	6.6	2					
SEA DISPOSAL	B	4.2	4.2	4.2	7					
PRE-PROCESSES:							A - SEPARATION B - COMPACTION C - SHREDDING			
6*	HANDLING DATA					8*	OFF-BASE DISPOSAL/ PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD				
						SECONDARY MATERIAL HANDLER				
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						DISPOSAL/RECYCLING METHOD				
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NAME	CELLULOSICS						COMBUSTION TEMPERATURE	840 °F																																																																
COMMON NAME (FORM)	CELLULOSE ACETATE BUTYRATE (SOLID STOCK)						HEAT OF COMBUSTION	15,770 BTU/LB																																																																
USES	CONTAINERS						MATERIAL DENSITY	71.76-82.37 LB/CU.FT.																																																																
FEDERAL/MILITARY SPECIFICATION NUMBER	L-P-397 L-P-349						BULK DENSITY	5-7 LB/CU.FT.																																																																
COMPOSITION							3	CHARACTERISTICS																																																																
4 DISPOSAL RATING SUMMARY <table border="1"> <thead> <tr> <th>METHOD OF DISPOSAL</th> <th>PRE-PROCESS</th> <th>OPERATIONAL RATING</th> <th>ENVIRONMENTAL RATING</th> <th>TOTAL DISPOSAL RATING</th> <th>TOTAL DISPOSAL RANKING</th> <th>ECONOMIC RANKING</th> </tr> </thead> <tbody> <tr> <td>REUSE</td> <td>A</td> <td>4.5</td> <td>10.0</td> <td>7.3</td> <td>2</td> <td></td> </tr> <tr> <td>RECYCLE</td> <td>A B</td> <td>4.4</td> <td>9.0</td> <td>6.7</td> <td>4</td> <td></td> </tr> <tr> <td>PYROLYSIS</td> <td>A C</td> <td>4.8</td> <td>7.8</td> <td>6.3</td> <td>6</td> <td></td> </tr> <tr> <td>COMPOSTING</td> <td>A C</td> <td>4.2</td> <td>7.8</td> <td>6.0</td> <td>7</td> <td></td> </tr> <tr> <td>BALING</td> <td>B</td> <td>7.0</td> <td>7.8</td> <td>7.4</td> <td>1</td> <td></td> </tr> <tr> <td>INCINERATION</td> <td>A C</td> <td>6.7</td> <td>6.2</td> <td>6.5</td> <td>5</td> <td></td> </tr> <tr> <td>SANITARY LANDFILL</td> <td>B</td> <td>6.2</td> <td>7.4</td> <td>6.8</td> <td>3</td> <td></td> </tr> <tr> <td>SEA DISPOSAL</td> <td>B</td> <td>4.7</td> <td>4.2</td> <td>4.5</td> <td>8</td> <td></td> </tr> </tbody> </table> <p>PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING</p>							METHOD OF DISPOSAL	PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	REUSE	A	4.5	10.0	7.3	2		RECYCLE	A B	4.4	9.0	6.7	4		PYROLYSIS	A C	4.8	7.8	6.3	6		COMPOSTING	A C	4.2	7.8	6.0	7		BALING	B	7.0	7.8	7.4	1		INCINERATION	A C	6.7	6.2	6.5	5		SANITARY LANDFILL	B	6.2	7.4	6.8	3		SEA DISPOSAL	B	4.7	4.2	4.5	8		FRAGMENTABILITY	GOOD	
							METHOD OF DISPOSAL	PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING																																																											
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CATEGORY	PLASTIC						MELTING TEMPERATURE	340-500 °F																																																																
NAME	CELLULOSICS						COMBUSTION TEMPERATURE	800 °F																																																																
COMMON NAME (FORM)	STRIPPABLE PLASTIC COATING - COLD (FILM)						HEAT OF COMBUSTION	16,000 BTU/LB																																																																
USES	COATING						MATERIAL DENSITY	72-82 LB/CU.FT.																																																																
FEDERAL/MILITARY SPECIFICATION NUMBER	MIL-P-45021						BULK DENSITY	72-82 LB/CU.FT.																																																																
COMPOSITION							3	CHARACTERISTICS																																																																
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							METHOD OF DISPOSAL	PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING																																																											
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SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							56	291		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY		PLASTIC					MELTING TEMPERATURE		340-500 °F	
NAME		CELLULOSICS					COMBUSTION TEMPERATURE		840 °F	
COMMON NAME (FORM)		STRIPPABLE PLASTIC COATING - HOT (FILM)					HEAT OF COMBUSTION		15,770 BTU/LB	
USES		COATING					MATERIAL DENSITY		71.78-82.37 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER		MIL-P-149					BULK DENSITY		70-80 LB/CU.FT.	
COMPOSITION							3	CHARACTERISTICS		
							FRAGMENTABILITY		EXCELLENT	
							SEPARABILITY		UNSATISFACTORY	
							COMPACTIBILITY		FAIR	
							COMBUSTIBILITY		POOR	
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)	
							BIOLOGICAL DEGRADABILITY		POOR	
							CHEMICAL DEGRADABILITY		POOR	
							REUSABILITY		UNSATISFACTORY	
4	DISPOSAL RATING SUMMARY						5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING*	PRODUCES HARMFUL GASES AND OFFENSIVE ODORS WHEN INCINERATED		
REUSE		A	1.0	10.0	5.5	5				
RECYCLE		A B	0.8	9.0	4.9	6				
PYROLYSIS		A	3.8	7.8	5.8	4				
COMPOSTING		A	3.8	7.8	5.8	4				
BALING		B	5.2	7.8	6.5	2				
INCINERATION		A	5.8	6.2	5.9	3				
SANITARY LANDFILL		B	5.7	7.4	6.6	1				
SEA DISPOSAL		B	4.2	4.2	4.2	7				
PRE-PROCESSES:		A = SEPARATION B = COMPACTION C = SHREDDING								
6*	HANDLING DATA					8*	OFF-BASE DISPOSAL/ PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION							DISPOSAL/PROCESSING METHOD			
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7*	ON-BASE DISPOSAL/ RECLAMATION DATA					8*	OFF-BASE DISPOSAL/ RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD							DISPOSAL/RECYCLING METHOD			
							SECONDARY MATERIAL HANDLER			
									*TO BE COMPLETED BY THE COGNIZANT OFFICER	

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							57	292		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY	PLASTIC						MELTING TEMPERATURE	250-500 °F		
NAME	EPOXY						COMBUSTION TEMPERATURE	APPROX. °F 700		
COMMON NAME (FORM)	EPOXY RESIN (FILM)						HEAT OF COMBUSTION	APPROX. BTU/LB 1500		
USES	COATING						MATERIAL DENSITY	72.38-75.50 LB/CU.FT.		
FEDERAL/MILITARY SPECIFICATION NUMBER	MIL-R-21931						BULK DENSITY	72.38-75.50 LB/CU.FT.		
COMPOSITION							3	CHARACTERISTICS		
							FRAGMENTABILITY	EXCELLENT		
							SEPARABILITY	UNSATISFACTORY		
							COMPACTIBILITY	FAIR		
							COMBUSTIBILITY	POOR		
							TOXICITY	EXCELLENT (SEE PRECAUTIONS)		
							BIOLOGICAL DEGRADABILITY	POOR		
							CHEMICAL DEGRADABILITY	POOR		
							REUSABILITY	UNSATISFACTORY		
							5°	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
							PRODUCES HARMFUL GASES WHEN INCINERATED			
4 DISPOSAL RATING SUMMARY										
METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *				
DISPOSAL	PRE-PROCESS									
REUSE	A	1.0	10.0	5.5	6					
RECYCLE	A B	1.4	9.0	5.2	7					
PYROLYSIS	A C	4.4	7.8	6.1	3					
COMPOSTING	A C	3.8	7.8	5.8	5					
BALING	B	5.2	7.8	6.5	2					
INCINERATION	A C	5.6	6.2	5.9	4					
SANITARY LANDFILL	B	5.9	7.4	6.7	1					
SEA DISPOSAL	B	3.2	4.2	3.7	8					
PRE-PROCESSES:										
A = SEPARATION B = COMPACTION C = SHREDDING										
6°	HANDLING DATA					8°	OFF-BASE DISPOSAL/ PROCESSING DATA		10°	NOTES AND COMMENTS
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*TO BE COMPLETED BY THE COGNIZANT OFFICER										

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							58	293	
1 MATERIAL DESCRIPTION							2 CHEMICAL PROPERTIES		
CATEGORY		PLASTIC					MELTING TEMPERATURE		280-350 °F
NAME		IONOMER					COMBUSTION TEMPERATURE		625 °F
COMMON NAME (FORM)		SURLYN (FILM, SHEET)					HEAT OF COMBUSTION		16,000 BTU/LB
USES		WRAPPING, MOLDED PARTS					MATERIAL DENSITY		58.03-59.80 LB/CU.FT.
FEDERAL/MILITARY SPECIFICATION NUMBER		MIL-P-46124					BULK DENSITY		50-60 LB/CU.FT.
COMPOSITION							3 CHARACTERISTICS		
							FRAGMENTABILITY		GOOD
							SEPARABILITY		FAIR
							COMPACTIBILITY		GOOD
							COMBUSTIBILITY		FAIR
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)
							BIOLOGICAL DEGRADABILITY		POOR
							CHEMICAL DEGRADABILITY		POOR
							REUSABILITY		GOOD
4 DISPOSAL RATING SUMMARY							5* SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS		
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *	PRODUCES HARMFUL GASES WHEN INCINERATED	
REUSE		A	4.5	10.0	7.3	1			
RECYCLE		A B	4.4	9.0	6.7	2			
PYROLYSIS		A C	4.8	7.8	6.3	4			
COMPOSTING		A C	4.2	7.8	6.0	6			
BALING		B	4.0	7.8	5.9	7			
INCINERATION		A C	6.2	6.2	6.2	5			
SANITARY LANDFILL		B	5.8	7.4	6.6	3			
SEA DISPOSAL		B	4.3	4.2	4.3	8			
PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING									
6* HANDLING DATA			8* OFF-BASE DISPOSAL/PROCESSING DATA				10* NOTES AND COMMENTS		
METHOD OF STORAGE/COLLECTION			DISPOSAL/PROCESSING METHOD						
			SECONDARY MATERIAL HANDLER						
7* ON-BASE DISPOSAL/RECLAMATION DATA			8* OFF-BASE DISPOSAL/RECYCLING DATA						
DISPOSAL/RECLAMATION METHOD			DISPOSAL/RECYCLING METHOD						
			SECONDARY MATERIAL HANDLER						
							*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							59	294	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	PLASTIC						MELTING TEMPERATURE	280-350 °F	
NAME	IONOMER						COMBUSTION TEMPERATURE	625 °F	
COMMON NAME (FORM)	SURLYN (FOAM)						HEAT OF COMBUSTION	16,000 $\frac{\text{BTU}}{\text{LB}}$	
USES	CUSHIONING						MATERIAL DENSITY	58.03-59.90 $\frac{\text{LB}}{\text{CU.FT.}}$	
FEDERAL/MILITARY SPECIFICATION NUMBER	-						BULK DENSITY	5-10 $\frac{\text{LB}}{\text{CU.FT.}}$	
COMPOSITION	-						3 CHARACTERISTICS		
							FRAGMENTABILITY	GOOD	
							SEPARABILITY	POOR	
							COMPACTIBILITY	GOOD	
							COMBUSTIBILITY	FAIR	
							TOXICITY	EXCELLENT (SEE PRECAUTIONS)	
							BIOLOGICAL DEGRADABILITY	POOR	
							CHEMICAL DEGRADABILITY	POOR	
							REUSABILITY	FAIR	
							5* SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS		
							PRODUCES HARMFUL GASES WHEN INCINERATED		
4 DISPOSAL RATING SUMMARY									
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *		
REUSE	A		3.0	10.0	6.5	3			
RECYCLE	A B		4.0	9.0	6.5	3			
PYROLYSIS	A C		4.6	7.8	6.2	4			
COMPOSTING	A C		4.0	7.8	5.9	5			
BALING	B		6.8	7.8	7.3	1			
INCINERATION	A C		6.1	6.2	6.2	4			
SANITARY LANDFILL	B		5.8	7.4	6.6	2			
SEA DISPOSAL	B		4.3	4.2	4.3	6			
PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING									
6*	HANDLING DATA				8*	OFF-BASE DISPOSAL/PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION					DISPOSAL/PROCESSING METHOD				
					SECONDARY MATERIAL HANDLER				
7*	ON-BASE DISPOSAL/RECLAMATION DATA				9*	OFF-BASE DISPOSAL/RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD				DISPOSAL/RECYCLING METHOD					
				SECONDARY MATERIAL HANDLER					
								*TO BE COMPLETED BY THE COGNIZANT OFFICER	

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							60	295	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY		PLASTIC					MELTING TEMPERATURE		290-380 °F
NAME		PHENOLICS (PHENOL-FORMALDEHYDE)					COMBUSTION TEMPERATURE		840 °F
COMMON NAME (FORM)		BAKELITE (SOLID STOCK)					HEAT OF COMBUSTION		12,000 BTU/LB
USES		TRAYS, CONTAINERS					MATERIAL DENSITY		80-85 LB/CU.FT.
FEDERAL/ MILITARY SPECIFICATION NUMBER		MIL-R-3745 L-P-1125					BULK DENSITY		3-22 LB/CU.FT.
COMPOSITION							3	CHARACTERISTICS	
							FRAGMENTABILITY		GOOD
							SEPARABILITY		FAIR
							COMPACTIBILITY		GOOD
							COMBUSTIBILITY		POOR
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)
							BIOLOGICAL DEGRADABILITY		POOR
							CHEMICAL DEGRADABILITY		POOR
							REUSABILITY		GOOD
4	DISPOSAL RATING SUMMARY						5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS	
METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	PRODUCES HARMFUL GASES AND OFFENSIVE ODORS WHEN INCINERATED		
DISPOSAL	PRE-PROCESS								
REUSE	A	4.5	10.0	7.3	1				
RECYCLE	A B	2.8	9.0	5.8	6				
PYROLYSIS	A C	4.8	7.8	6.3	4				
COMPOSTING	A C	4.2	7.8	6.0	5				
BALING	B	6.2	7.8	7.0	2				
INCINERATION	A C	5.2	6.2	5.7	7				
SANITARY LANDFILL	B	6.4	7.4	6.9	3				
SEA DISPOSAL	B	4.9	4.2	4.6	8				
PRE-PROCESSES:		A = SEPARATION B = COMPACTION C = SHREDDING							
6*	HANDLING DATA			8*	OFF-BASE DISPOSAL/ PROCESSING DATA			10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION				DISPOSAL/PROCESSING METHOD					
				SECONDARY MATERIAL HANDLER					
7*	ON-BASE DISPOSAL/ RECLAMATION DATA			9*	OFF-BASE DISPOSAL/ RECYCLING DATA				
DISPOSAL/RECLAMATION METHOD				DISPOSAL/RECYCLING METHOD					
				SECONDARY MATERIAL HANDLER					

*TO BE COMPLETED BY THE COGNIZANT OFFICER

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							61	296	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY		PLASTIC					MELTING TEMPERATURE		300-400 °F
NAME		PLASTIC/FOIL LAMINATION					COMBUSTION TEMPERATURE		700-800 °F
COMMON NAME (FORM)		POLYOLEFIN/ALUMINUM/ POLYESTER (SHEET)					HEAT OF COMBUSTION		18,000- 20,000 BTU LB
USES		WRAPPING, POUCHES					MATERIAL DENSITY		60-90 LB CU.FT.
FEDERAL/ MILITARY SPECIFICATION NUMBER							BULK DENSITY		60-90 LB CU.FT.
COMPOSITION							3	CHARACTERISTICS	
							FRAGMENTABILITY		EXCELLENT
							SEPARABILITY		POOR
							COMPACTIBILITY		FAIR
							COMBUSTIBILITY		POOR
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)
							BIOLOGICAL DEGRADABILITY		POOR
							CHEMICAL DEGRADABILITY		POOR
							REUSABILITY		UNSATISFACTORY
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS	
							PRODUCES OFFENSIVE ODORS WHEN INCINERATED		
DISPOSAL RATING SUMMARY									
METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING*			
DISPOSAL	PRE-PROCESS								
REUSE	A	2.0	10.0	6.0	4				
RECYCLE	A B	1.8	9.0	5.4	7				
PYROLYSIS	A C	4.6	7.8	6.2	3				
COMPOSTING	A C	4.0	7.8	5.9	5				
BALING	B	5.2	7.8	6.5	2				
INCINERATION	A C	5.2	6.2	5.7	6				
SANITARY LANDFILL	B	5.9	7.4	6.7	1				
SEA DISPOSAL	B	4.4	4.2	4.3	8				
PRE-PROCESSES:							A - SEPARATION B - COMPACTION C - SHREDDING		
6*	HANDLING DATA			8* OFF-BASE DISPOSAL/ PROCESSING DATA			10* NOTES AND COMMENTS		
METHOD OF STORAGE/COLLECTION				DISPOSAL/PROCESSING METHOD					
				SECONDARY MATERIAL HANDLER					
7* ON-BASE DISPOSAL/ RECLAMATION DATA				9* OFF-BASE DISPOSAL/ RECYCLING DATA					
				DISPOSAL/RECYCLING METHOD					
				DISPOSAL/RECYCLING METHOD					
				SECONDARY MATERIAL HANDLER					
							*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE																																																																	
							MATERIAL NO.	REFERENCE PG.	OTHER																																																															
							62	297																																																																
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES																																																																
CATEGORY	PLASTIC						MELTING TEMPERATURE	300-425 °F																																																																
NAME	POLYACRYLICS						COMBUSTION TEMPERATURE	ABOVE 700 °F																																																																
COMMON NAME (FORM)	LUCITE, PLEXIGLAS (SOLID STOCK, SHEET)						HEAT OF COMBUSTION	15,770 BTU/LB																																																																
USES	CONTAINERS						MATERIAL DENSITY	88.64 - 74.88 LB/CU.FT.																																																																
FEDERAL/MILITARY SPECIFICATION NUMBER	MIL-P-8184						BULK DENSITY	2-20 LB/CU.FT.																																																																
COMPOSITION							3	CHARACTERISTICS																																																																
DISPOSAL RATING SUMMARY <table border="1"> <thead> <tr> <th colspan="2">METHOD OF DISPOSAL</th> <th>OPERATIONAL RATING</th> <th>ENVIRONMENTAL RATING</th> <th>TOTAL DISPOSAL RATING</th> <th>TOTAL DISPOSAL RANKING</th> <th>ECONOMIC RANKING *</th> </tr> </thead> <tbody> <tr> <td>REUSE</td> <td>A</td> <td>4.5</td> <td>10.0</td> <td>7.3</td> <td>2</td> <td></td> </tr> <tr> <td>RECYCLE</td> <td>A B</td> <td>4.4</td> <td>9.0</td> <td>6.7</td> <td>3</td> <td></td> </tr> <tr> <td>PYROLYSIS</td> <td>A C</td> <td>4.8</td> <td>7.8</td> <td>6.3</td> <td>4</td> <td></td> </tr> <tr> <td>COMPOSTING</td> <td>A C</td> <td>4.2</td> <td>7.8</td> <td>6.0</td> <td>5</td> <td></td> </tr> <tr> <td>BALING</td> <td>B</td> <td>7.2</td> <td>7.8</td> <td>7.5</td> <td>1</td> <td></td> </tr> <tr> <td>INCINERATION</td> <td>A C</td> <td>5.7</td> <td>6.2</td> <td>6.0</td> <td>5</td> <td></td> </tr> <tr> <td>SANITARY LANDFILL</td> <td>B</td> <td>6.0</td> <td>7.4</td> <td>6.7</td> <td>3</td> <td></td> </tr> <tr> <td>SEA DISPOSAL</td> <td>B</td> <td>4.5</td> <td>4.2</td> <td>4.4</td> <td>6</td> <td></td> </tr> </tbody> </table> <p>* PRE-PROCESSES: A = SEPARATION B = COMPACTION C = SHREDDING</p>							METHOD OF DISPOSAL		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *	REUSE	A	4.5	10.0	7.3	2		RECYCLE	A B	4.4	9.0	6.7	3		PYROLYSIS	A C	4.8	7.8	6.3	4		COMPOSTING	A C	4.2	7.8	6.0	5		BALING	B	7.2	7.8	7.5	1		INCINERATION	A C	5.7	6.2	6.0	5		SANITARY LANDFILL	B	6.0	7.4	6.7	3		SEA DISPOSAL	B	4.5	4.2	4.4	6		FRAGMENTABILITY	GOOD	
							METHOD OF DISPOSAL		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *																																																											
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							COMPOSTING	A C	4.2	7.8	6.0	5																																																												
							BALING	B	7.2	7.8	7.5	1																																																												
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* TO BE COMPLETED BY THE COGNIZANT OFFICER																																																																								

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE					
							MATERIAL NO. 63	REFERENCE PG. 298	OTHER			
1		MATERIAL DESCRIPTION					2		CHEMICAL PROPERTIES			
CATEGORY		PLASTIC					MELTING TEMPERATURE		520-700 °F			
NAME		POLYAMIDS					COMBUSTION TEMPERATURE		- °F			
COMMON NAME (FORM)		NYLON (CLOTH)					HEAT OF COMBUSTION		12,000- 13,500 BTU/LB			
USES		SACKS					MATERIAL DENSITY		64.89- 84.24 LB/CU.FT.			
FEDERAL/ MILITARY SPECIFICATION NUMBER		MIL-C-81268					BULK DENSITY		60-84 LB/CU.FT.			
COMPOSITION		-					3		CHARACTERISTICS			
							FRAGMENTABILITY		GOOD			
4		DISPOSAL RATING SUMMARY					SEPARABILITY		POOR			
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *	COMPACTIBILITY		FAIR		
REUSE		A	3.0	10.0	6.5	2		COMBUSTIBILITY		UNSATISFACTORY		
RECYCLE		B	3.6	9.0	6.3	3		TOXICITY		EXCELLENT		
PYROLYSIS		C	4.6	7.8	6.2	4		BIOLOGICAL DEGRADABILITY		POOR		
COMPOSTING		C	4.0	7.8	5.9	5		CHEMICAL DEGRADABILITY		POOR		
BALING		B	5.2	7.8	6.5	2		REUSABILITY		FAIR		
INCINERATION		C	4.7	6.2	5.5	6		5*		SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
SANITARY LANDFILL		B	5.9	7.4	6.7	1						
SEA DISPOSAL		B	4.4	4.2	4.3	7						
PRE-PROCESSES:		A = SEPARATION B = COMPACTION C = SHREDDING										
6*		HANDLING DATA				8*		OFF-BASE DISPOSAL/ PROCESSING DATA		10*		NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD						
						SECONDARY MATERIAL HANDLER						
7*		ON-BASE DISPOSAL/ RECLAMATION DATA				9*		OFF-BASE DISPOSAL/ RECYCLING DATA				
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD						
						SECONDARY MATERIAL HANDLER						
												* TO BE COMPLETED BY THE COGNIZANT OFFICER

SUMMARY FACT SHEET SOLID WASTE						REFERENCE CODE				
	MATERIAL NO.	REFERENCE PG.	OTHER							
	64	299								
1	MATERIAL DESCRIPTION					2	CHEMICAL PROPERTIES			
CATEGORY	PLASTIC					MELTING TEMPERATURE	520-700 °F			
NAME	POLYAMIDS					COMBUSTION TEMPERATURE	°F			
COMMON NAME (FORM)	NYLON (FIBER)					HEAT OF COMBUSTION	12,000- 13,500 BTU/LB			
USES	CORD					MATERIAL DENSITY	64.88- 84.24 LB/CU.FT			
FEDERAL/ MILITARY SPECIFICATION NUMBER	MIL-C-5040					BULK DENSITY	60-80 LB/CU.FT			
COMPOSITION						3	CHARACTERISTICS			
						FRAGMENTABILITY	GOOD			
4	DISPOSAL RATING SUMMARY					SEPARABILITY	POOR			
METHOD OF DISPOSAL	PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *	COMPACTIBILITY	FAIR		
REUSE	A	2.0	10.0	6.0	5		COMBUSTIBILITY	UNSATISFACTORY		
RECYCLE	A B	3.6	9.0	6.3	3		TOXICITY	EXCELLENT (SEE PRECAUTIONS)		
PYROLYSIS	A C	4.6	7.8	6.2	4		BIOLOGICAL DEGRADABILITY	POOR		
COMPOSTING	A C	4.0	7.8	5.9	6		CHEMICAL DEGRADABILITY	POOR		
BALING	B	5.2	7.8	6.5	2		REUSABILITY	UNSATISFACTORY		
INCINERATION	A C	4.7	8.2	5.5	7		5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
SANITARY LANDFILL	B	5.9	7.4	6.7	1		PRODUCES OFFENSIVE ODORS WHEN INCINERATED			
SEA DISPOSAL	B	4.4	4.2	4.3	8					
PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING										
6*	HANDLING DATA			8*	OFF-BASE DISPOSAL/ PROCESSING DATA			10*	NOTES AND COMMENTS	
METHOD OF STORAGE/COLLECTION				DISPOSAL/PROCESSING METHOD						
				SECONDARY MATERIAL HANDLER						
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7*	ON-BASE DISPOSAL/ RECLAMATION DATA			9*	OFF-BASE DISPOSAL/ RECYCLING DATA					
DISPOSAL/RECLAMATION METHOD				DISPOSAL/RECYCLING METHOD						
				SECONDARY MATERIAL HANDLER						
*TO BE COMPLETED BY THE COGNIZANT OFFICER										

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							65	300	
1 MATERIAL DESCRIPTION							2 CHEMICAL PROPERTIES		
CATEGORY		PLASTIC					MELTING TEMPERATURE		480-650 °F
NAME		POLYCARBONATE					COMBUSTION TEMPERATURE		780-800 °F
COMMON NAME (FORM)		POLYCARBONATE (SHEET)					HEAT OF COMBUSTION		16,000 BTU/LB
USES		WRAPPING					MATERIAL DENSITY		74.88-93.60 LB/CU.FT.
FEDERAL/MILITARY SPECIFICATION NUMBER		MIL-P-46144 MIL-P-83310					BULK DENSITY		70-90 LB/CU.FT.
COMPOSITION		COMMERCIAL QUALITY 3 MILS AND UNDER					3 CHARACTERISTICS		
							FRAGMENTABILITY		EXCELLENT
							SEPARABILITY		POOR
							COMPACTIBILITY		FAIR
							COMBUSTIBILITY		FAIR
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)
							BIOLOGICAL DEGRADABILITY		POOR
							CHEMICAL DEGRADABILITY		POOR
							REUSABILITY		UNSATISFACTORY
							5* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
							PRODUCES HARMFUL GASES WHEN INCINERATED		
4 DISPOSAL RATING SUMMARY									
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING		
REUSE		A	2.0	10.0	6.0	5			
RECYCLE		A B	3.6	9.0	6.3	3			
PYROLYSIS		A C	4.6	7.8	6.2	4			
COMPOSTING		A C	4.0	7.8	5.9	6			
BALING		B	5.2	7.8	6.5	2			
INCINERATION		A C	6.7	6.2	6.5	2			
SANITARY LANDFILL		B	5.9	7.4	6.7	1			
SEA DISPOSAL		B	4.4	4.2	4.3	7			
PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING									
6* HANDLING DATA		8* OFF-BASE DISPOSAL/ PROCESSING DATA					10* NOTES AND COMMENTS		
METHOD OF STORAGE/COLLECTION		DISPOSAL/PROCESSING METHOD							
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DISPOSAL/RECLAMATION METHOD		DISPOSAL/RECYCLING METHOD							
		SECONDARY MATERIAL HANDLER							
							*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							66	301	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY		PLASTIC					MELTING TEMPERATURE		480-650 °F
NAME		POLYCARBONATE					COMBUSTION TEMPERATURE		780-800 °F
COMMON NAME (FORM)		POLYCARBONATE (SOLID STOCK)					HEAT OF COMBUSTION		16,000 BTU/LB
USES		CONTAINERS					MATERIAL DENSITY		74.88-93.60 LB/CU.FT.
FEDERAL/MILITARY SPECIFICATION NUMBER							BULK DENSITY		2-5 LB/CU.FT.
COMPOSITION		UNFILLED TO LESS THAN 10% GLASS FILLED					3 CHARACTERISTICS		
							FRAGMENTABILITY		GOOD
							SEPARABILITY		FAIR
							COMPACTIBILITY		GOOD
							COMBUSTIBILITY		POOR
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)
							BIOLOGICAL DEGRADABILITY		POOR
							CHEMICAL DEGRADABILITY		POOR
							REUSABILITY		GOOD
							5* SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS		
							PRODUCES HARMFUL GASES WHEN INCINERATED		
4 DISPOSAL RATING SUMMARY									
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO-NOMIC RANKING *		
REUSE		A	4.5	10.0	7.3	2			
RECYCLE		A B	4.4	9.0	6.7	4			
PYROLYSIS		A C	4.8	7.8	6.3	5			
COMPOSTING		A C	4.2	7.8	6.0	6			
BALING		B	7.0	7.8	7.4	1			
INCINERATION		A C	5.2	6.2	5.7	7			
SANITARY LANDFILL		B	6.2	7.4	6.8	3			
SEA DISPOSAL		B	4.7	4.2	4.5	8			
PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING									
6* HANDLING DATA		8* OFF-BASE DISPOSAL/PROCESSING DATA					10* NOTES AND COMMENTS		
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DISPOSAL/RECLAMATION METHOD		DISPOSAL/RECYCLING METHOD							
		SECONDARY MATERIAL HANDLER							
							*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE				
							MATERIAL NO.	REFERENCE PG.	OTHER		
							67	302			
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES			
CATEGORY		PLASTIC					MELTING TEMPERATURE		300-450 °F		
NAME		POLYESTER					COMBUSTION TEMPERATURE		760-800 °F		
COMMON NAME (FORM)		DACRON (FIBER)					HEAT OF COMBUSTION		12,000 BTU/LB		
USES		STRAPS					MATERIAL DENSITY		93.60-131.04 LB/CU.FT.		
FEDERAL/MILITARY SPECIFICATION NUMBER		-					BULK DENSITY		90-130 LB/CU.FT.		
COMPOSITION		GLASS REINFORCED WOVEN CLOTH					3	CHARACTERISTICS			
							FRAGMENTABILITY		EXCELLENT		
							SEPARABILITY		POOR		
							COMPACTIBILITY		FAIR		
							COMBUSTIBILITY		GOOD		
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)		
							BIOLOGICAL DEGRADABILITY		POOR		
							CHEMICAL DEGRADABILITY		POOR		
							REUSABILITY		UNSATISFACTORY		
							6*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS			
							PRODUCES HARMFUL GASES WHEN INCINERATED				
4 DISPOSAL RATING SUMMARY											
METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *					
DISPOSAL	PRE-PROCESS										
REUSE	A	2.0	10.0	6.0	6						
RECYCLE	A B	3.6	9.0	6.3	4						
PYROLYSIS	A C	4.8	7.8	6.2	5						
COMPOSTING	A C	4.0	7.8	5.9	7						
BALING	B	5.2	7.8	6.5	3						
INCINERATION	A C	7.7	6.2	7.0	1						
SANITARY LANDFILL	B	6.3	7.4	6.9	2						
SEA DISPOSAL	B	4.8	4.2	4.5	8						
PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING											
6*	HANDLING DATA					8*	OFF-BASE DISPOSAL/ PROCESSING DATA			10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD					
						SECONDARY MATERIAL HANDLER					
7*	ON-BASE DISPOSAL/ RECLAMATION DATA					9*	OFF-BASE DISPOSAL/ RECYCLING DATA				
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD					
						SECONDARY MATERIAL HANDLER					
									*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE NO.	OTHER
							68	303	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY		PLASTIC					MELTING TEMPERATURE		480-509 °F
NAME		POLYESTER					COMBUSTION TEMPERATURE		760-800 °F
COMMON NAME (FORM)		MYLAR (FILM)					HEAT OF COMBUSTION		12,000 BTU/LB
USES		POUCHES					MATERIAL DENSITY		93.80-131.04 LB./CU.FT.
FEDERAL/MILITARY SPECIFICATION NUMBER		L-P-377					BULK DENSITY		90-130 LB./CU.FT.
COMPOSITION		GLASS REINFORCED WOVEN CLOTH					3 CHARACTERISTICS		
							FRAGMENTABILITY		EXCELLENT
							SEPARABILITY		POOR
							COMPACTIBILITY		FAIR
							COMBUSTIBILITY		GOOD
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)
							BIOLOGICAL DEGRADABILITY		POOR
							CHEMICAL DEGRADABILITY		POOR
							REUSABILITY		UNSATISFACTORY
							5* SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS		
							PRODUCES OFFENSIVE ODORS WHEN INCINERATED		
4 DISPOSAL RATING SUMMARY									
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO-NOMIC RANKING *		
REUSE		A	2.0	10.0	6.0	6			
RECYCLE		A B	3.8	9.0	6.3	4			
PYROLYSIS		A C	4.8	7.8	6.2	5			
COMPOSTING		A C	4.0	7.8	5.9	7			
BALING		B	5.2	7.8	6.5	3			
INCINERATION		A C	7.7	6.2	7.0	1			
SANITARY LANDFILL		B	6.3	7.4	6.9	2			
SEA DISPOSAL		B	4.8	4.2	4.5	8			
PRE-PROCESSES:							A - SEPARATION B - COMPACTION C - SHREDDING		
6* HANDLING DATA		8* OFF-BASE DISPOSAL/PROCESSING DATA					10* NOTES AND COMMENTS		
METHOD OF STORAGE/COLLECTION		DISPOSAL/PROCESSING METHOD							
		SECONDARY MATERIAL HANDLER							
7* ON-BASE DISPOSAL/RECLAMATION DATA		9* OFF-BASE DISPOSAL/RECYCLING DATA							
DISPOSAL/RECLAMATION METHOD		DISPOSAL/RECYCLING METHOD							
		SECONDARY MATERIAL HANDLER							
							*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							69	304	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY		PLASTIC					MELTING TEMPERATURE		300-600 °F
NAME		POLYOLEFIN					COMBUSTION TEMPERATURE		680 °F
COMMON NAME (FORM)		POLYETHYLENE (FILM)					HEAT OF COMBUSTION		18,500-19,500 BTU/LB
USES		WRAPPING, POUCHES					MATERIAL DENSITY		56.78-60.22 LB/CU.FT.
FEDERAL/MILITARY SPECIFICATION NUMBER		L-P-378					BULK DENSITY		50-80 LB/CU.FT.
COMPOSITION		COMMERCIAL PACKING QUALITY (3MILS AND UNDER)					3 CHARACTERISTICS		
							FRAGMENTABILITY		EXCELLENT
							SEPARABILITY		POOR
							COMPACTIBILITY		FAIR
							COMBUSTIBILITY		FAIR
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)
							BIOLOGICAL DEGRADABILITY		POOR
							CHEMICAL DEGRADABILITY		POOR
							REUSABILITY		UNSATISFACTORY
							5* SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS		
							PRODUCES HARMFUL GASES WHEN INCINERATED		
4 DISPOSAL RATING SUMMARY									
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *		
REUSE		A	2.0	10.0	6.0	5			
RECYCLE		A B	3.6	9.0	6.3	3			
PYROLYSIS		A C	4.6	7.8	6.2	4			
COMPOSTING		A C	4.0	7.8	5.9	6			
BALING		B	5.0	7.8	6.4	2			
INCINERATION		A C	6.7	6.2	6.5	1			
SANITARY LANDFILL		B	5.5	7.4	6.5	1			
SEA DISPOSAL		B	4.0	4.2	4.1	7			
PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING									
6* HANDLING DATA		8* OFF-BASE DISPOSAL/PROCESSING DATA				10* NOTES AND COMMENTS			
METHOD OF STORAGE/COLLECTION		DISPOSAL/PROCESSING METHOD							
		SECONDARY MATERIAL HANDLER							
7* ON-BASE DISPOSAL/RECLAMATION DATA		9* OFF-BASE DISPOSAL/RECYCLING DATA							
DISPOSAL/RECLAMATION METHOD		DISPOSAL/RECYCLING METHOD							
		SECONDARY MATERIAL HANDLER							
						*TO BE COMPLETED BY THE COGNIZANT OFFICER			

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE																																																																	
							MATERIAL NO.	REFERENCE PG.	OTHER																																																															
							70	305																																																																
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES																																																																
CATEGORY	PLASTIC						MELTING TEMPERATURE	300-600	°F																																																															
NAME	POLYOLEFIN						COMBUSTION TEMPERATURE	680	°F																																																															
COMMON NAME (FORM)	POLYETHYLENE (SOLID STOCK)						HEAT OF COMBUSTION	18,500-19,500	BTU/LB																																																															
USES	CONTAINERS						MATERIAL DENSITY	56.78-60.22	LB/CU.FT.																																																															
FEDERAL/MILITARY SPECIFICATION NUMBER	MIL-D-40030						BULK DENSITY	2-6	LB/CU.FT.																																																															
COMPOSITION							3 CHARACTERISTICS																																																																	
4 DISPOSAL RATING SUMMARY <table border="1"> <thead> <tr> <th>METHOD OF DISPOSAL</th> <th>PRE-PROCESS</th> <th>OPERATIONAL RATING</th> <th>ENVIRONMENTAL RATING</th> <th>TOTAL DISPOSAL RATING</th> <th>TOTAL DISPOSAL RANKING</th> <th>ECONOMIC RANKING *</th> </tr> </thead> <tbody> <tr> <td>REUSE</td> <td>A</td> <td>4.5</td> <td>10.0</td> <td>7.3</td> <td>2</td> <td></td> </tr> <tr> <td>RECYCLE</td> <td>A B</td> <td>4.4</td> <td>9.0</td> <td>6.7</td> <td>3</td> <td></td> </tr> <tr> <td>PYROLYSIS</td> <td>A C</td> <td>4.8</td> <td>7.8</td> <td>6.3</td> <td>6</td> <td></td> </tr> <tr> <td>COMPOSTING</td> <td>A C</td> <td>4.2</td> <td>7.8</td> <td>6.0</td> <td>7</td> <td></td> </tr> <tr> <td>BALING</td> <td>B</td> <td>7.0</td> <td>7.8</td> <td>7.4</td> <td>1</td> <td></td> </tr> <tr> <td>INCINERATION</td> <td>A C</td> <td>6.7</td> <td>6.2</td> <td>6.5</td> <td>5</td> <td></td> </tr> <tr> <td>SANITARY LANDFILL</td> <td>B</td> <td>5.8</td> <td>7.4</td> <td>6.6</td> <td>4</td> <td></td> </tr> <tr> <td>SEA DISPOSAL</td> <td>B</td> <td>4.3</td> <td>4.2</td> <td>4.3</td> <td>8</td> <td></td> </tr> </tbody> </table> PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING							METHOD OF DISPOSAL	PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *	REUSE	A	4.5	10.0	7.3	2		RECYCLE	A B	4.4	9.0	6.7	3		PYROLYSIS	A C	4.8	7.8	6.3	6		COMPOSTING	A C	4.2	7.8	6.0	7		BALING	B	7.0	7.8	7.4	1		INCINERATION	A C	6.7	6.2	6.5	5		SANITARY LANDFILL	B	5.8	7.4	6.6	4		SEA DISPOSAL	B	4.3	4.2	4.3	8		FRAGMENTABILITY	GOOD	
							METHOD OF DISPOSAL	PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *																																																											
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							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS																																																																
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							*TO BE COMPLETED BY THE COGNIZANT OFFICER																																																																	

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							71	306		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY	PLASTIC						MELTING TEMPERATURE	400-550 °F		
NAME	POLYOLEFIN						COMBUSTION TEMPERATURE	640 °F		
COMMON NAME (FORM)	POLYPROPYLENE (FIBER)						HEAT OF COMBUSTION	18,500-19,500 BTU/LB		
USES	CORD						MATERIAL DENSITY	57.02 LB/CU.FT.		
FEDERAL/MILITARY SPECIFICATION NUMBER	MIL-R-24049						BULK DENSITY	57 LB/CU.FT.		
COMPOSITION							3	CHARACTERISTICS		
							FRAGMENTABILITY	EXCELLENT		
							SEPARABILITY	POOR		
							COMPACTIBILITY	FAIR		
							COMBUSTIBILITY	FAIR		
							TOXICITY	EXCELLENT (SEE PRECAUTIONS)		
							BIOLOGICAL DEGRADABILITY	POOR		
							CHEMICAL DEGRADABILITY	POOR		
							REUSABILITY	UNSATISFACTORY		
							5*	SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS		
							PRODUCES OFFENSIVE ODORS WHEN INCINERATED			
4							DISPOSAL RATING SUMMARY			
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *			
REUSE		A	2.0	10.0	6.0	4				
RECYCLE		A B	3.6	9.0	6.3	2				
PYROLYSIS		A C	4.6	7.8	6.2	3				
COMPOSTING		A C	4.0	7.8	5.9	5				
BALING		B	5.2	7.8	6.5	1				
INCINERATION		A C	6.7	6.2	6.5	1				
SANITARY LANDFILL		B	5.5	7.4	6.5	1				
SEA DISPOSAL		B	4.0	4.2	4.1	6				
PRE-PROCESSES:							A = SEPARATION B = COMPACTION C = SHREDDING			
6*	HANDLING DATA					8*	OFF-BASE DISPOSAL/PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD				
						SECONDARY MATERIAL HANDLER				
7*	ON-BASE DISPOSAL/RECLAMATION DATA					9*	OFF-BASE DISPOSAL/RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD					DISPOSAL/RECYCLING METHOD					
					SECONDARY MATERIAL HANDLER					
									*TO BE COMPLETED BY THE COGNIZANT OFFICER	

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							72	307	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	PLASTIC						MELTING TEMPERATURE	400-550 °F	
NAME	POLYOLEFIN						COMBUSTION TEMPERATURE	640 °F	
COMMON NAME (FORM)	POLYPROPYLENE (FILM)						HEAT OF COMBUSTION	20,000 BTU/LB	
USES	WRAPPING, POUCHES						MATERIAL DENSITY	57.02 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER	L-P-378						BULK DENSITY	50-60 LB/CU.FT.	
COMPOSITION							3	CHARACTERISTICS	
							FRAGMENTABILITY	EXCELLENT	
							SEPARABILITY	POOR	
							COMPACTIBILITY	FAIR	
							COMBUSTIBILITY	FAIR	
							TOXICITY	EXCELLENT (SEE PRECAUTIONS)	
							BIOLOGICAL DEGRADABILITY	POOR	
							CHEMICAL DEGRADABILITY	POOR	
							REUSABILITY	UNSATISFACTORY	
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS	
							PRODUCES OFFENSIVE ODORS WHEN INCINERATED		
DISPOSAL RATING SUMMARY									
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING		
REUSE		A	2.0	10.0	6.0	5			
RECYCLE		A B	3.6	9.0	6.3	3			
PYROLYSIS		A C	4.6	7.8	6.2	4			
COMPOSTING		A C	4.0	7.8	5.9	6			
BALING		B	5.6	7.8	6.7	1			
INCINERATION		A C	6.7	6.2	6.5	2			
SANITARY LANDFILL		B	5.5	7.4	6.5	2			
SEA DISPOSAL		B	4.0	4.2	4.1	7			
PRE-PROCESSES:							A = SEPARATION B = COMPACTION C = SHREDDING		
6*	HANDLING DATA						8*	OFF-BASE DISPOSAL/ PROCESSING DATA	
METHOD OF STORAGE/COLLECTION							DISPOSAL/PROCESSING METHOD		
							SECONDARY MATERIAL HANDLER		
7*	ON-BASE DISPOSAL/ RECLAMATION DATA						9*	OFF-BASE DISPOSAL/ RECYCLING DATA	
DISPOSAL/RECLAMATION METHOD							DISPOSAL/RECYCLING METHOD		
							SECONDARY MATERIAL HANDLER		
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							73	308		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY	PLASTIC						MELTING TEMPERATURE	400-550 °F		
NAME	POLYOLEFIN						COMBUSTION TEMPERATURE	640 °F		
COMMON NAME (FORM)	POLYPROPYLENE (FOAM)						HEAT OF COMBUSTION	20,000 BTU/LB		
USES	CUSHIONING						MATERIAL DENSITY	35 LB/CU.FT.		
FEDERAL/MILITARY SPECIFICATION NUMBER	PPP-C-1797						BULK DENSITY	.4-.9 LB/CU.FT.		
COMPOSITION							3	CHARACTERISTICS		
							FRAGMENTABILITY	EXCELLENT		
							SEPARABILITY	POOR		
							COMPACTIBILITY	FAIR		
							COMBUSTIBILITY	FAIR		
							TOXICITY	EXCELLENT (SEE PRECAUTIONS)		
							BIOLOGICAL DEGRADABILITY	POOR		
							CHEMICAL DEGRADABILITY	POOR		
							REUSABILITY	FAIR		
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
							PREODUCES OFFENSIVE ODORS WHEN INCINERATED			
DISPOSAL RATING SUMMARY										
METHOD OF DISPOSAL		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *				
REUSE	A	3.0	10.0	6.5	2					
RECYCLE	B	4.0	9.0	6.5	2					
PYROLYSIS	C	4.8	7.8	6.3	3					
COMPOSTING	C	4.2	7.8	6.0	4					
BALING	B	8.2	7.8	8.0	1					
INCINERATION	A	6.8	6.2	6.5	2					
SANITARY LANDFILL	B	5.5	7.4	6.5	2					
SEA DISPOSAL	B	4.0	4.2	4.1	5					
PRE-PROCESSES:										
A - SEPARATION										
B - COMPACTION										
C - SHREDDING										
6*	HANDLING DATA					8*	OFF-BASE DISPOSAL/ PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD				
						SECONDARY MATERIAL HANDLER				
7*	ON-BASE DISPOSAL/ RECLAMATION DATA					9*	OFF-BASE DISPOSAL/ RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD				
						SECONDARY MATERIAL HANDLER				
* TO BE COMPLETED BY THE COGNIZANT OFFICER										

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							75	310		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY		PLASTIC					MELTING TEMPERATURE		375-500 °F	
NAME		POLYSTYRENE					COMBUSTION TEMPERATURE		880 °F	
COMMON NAME (FORM)		POLYSTYRENE (SHEET, FILM)					HEAT OF COMBUSTION		17,000-17,500 BTU/LB	
USES		WRAPPING					MATERIAL DENSITY		64.90-68.02 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER		L-P-506					BULK DENSITY		60-70 LB/CU.FT.	
COMPOSITION							3 CHARACTERISTICS			
							FRAGMENTABILITY		EXCELLENT	
							SEPARABILITY		POOR	
							COMPACTIBILITY		FAIR	
							COMBUSTIBILITY		FAIR	
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)	
							BIOLOGICAL DEGRADABILITY		POOR	
							CHEMICAL DEGRADABILITY		POOR	
							REUSABILITY		UNSATISFACTORY	
							5* SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS			
							PRODUCES HARMFUL GASES WHEN INCINERATED			
4 DISPOSAL RATING SUMMARY										
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO-NOMIC RANKING			
REUSE		A	2.0	10.0	6.0	6				
RECYCLE		A B	3.6	9.0	6.3	4				
PYROLYSIS		A C	4.6	7.8	6.2	5				
COMPOSTING		A C	4.0	7.8	5.9	7				
BALING		B	5.6	7.8	6.7	1				
INCINERATION		A C	6.7	6.2	6.5	3				
SANITARY LANDFILL		B	5.7	7.4	6.6	2				
SEA DISPOSAL		B	4.2	4.2	4.2	8				
PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING										
6* HANDLING DATA		7* ON-BASE DISPOSAL/RECLAMATION DATA					8* OFF-BASE DISPOSAL/PROCESSING DATA		10* NOTES AND COMMENTS	
METHOD OF STORAGE/COLLECTION							DISPOSAL/PROCESSING METHOD			
							SECONDARY MATERIAL HANDLER			
							DISPOSAL/RECYCLING METHOD		*TO BE COMPLETED BY THE COGNIZANT OFFICER	
							SECONDARY MATERIAL HANDLER			

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							77	311		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY	PLASTIC						MELTING TEMPERATURE	375-500 °F		
NAME	POLYSTYRENE						COMBUSTION TEMPERATURE	880 °F		
COMMON NAME (FORM)	STYROFOAM (FOAM)						HEAT OF COMBUSTION	17,000-17,500 BTU/LB		
USES	CONTAINERS						MATERIAL DENSITY	64.80-68.02 LB/CU.FT.		
FEDERAL/MILITARY SPECIFICATION NUMBER							BULK DENSITY	1-3 LB/CU.FT.		
COMPOSITION							3	CHARACTERISTICS		
							FRAGMENTABILITY	GOOD		
							SEPARABILITY	FAIR		
							COMPACTIBILITY	GOOD		
							COMBUSTIBILITY	POOR		
							TOXICITY	EXCELLENT (SEE PRECAUTIONS)		
							BIOLOGICAL DEGRADABILITY	POOR		
							CHEMICAL DEGRADABILITY	POOR		
							REUSABILITY	GOOD		
							5*	SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS		
							PRODUCES HARMFUL GASES AND OFFENSIVE ODORS WHEN INCINERATED			
4							DISPOSAL RATING SUMMARY			
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING			
REUSE	A		4.5	10.0	7.3	1				
RECYCLE	B		4.4	9.0	6.7	3				
PYROLYSIS	C		4.8	7.8	6.3	4				
COMPOSTING	A		4.2	7.8	6.0	5				
BALING	B		6.4	7.8	7.1	2				
INCINERATION	A		5.2	6.2	5.7	6				
SANITARY LANDFILL	B		6.0	7.4	6.7	3				
SEA DISPOSAL	B		4.5	4.2	4.4	7				
PRE-PROCESSES:			A = SEPARATION B = COMPACTION C = SHREDDING							
6*	HANDLING DATA					8*	OFF-BASE DISPOSAL/PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD				
						SECONDARY MATERIAL HANDLER				
7*	ON-BASE DISPOSAL/RECLAMATION DATA					9*	OFF-BASE DISPOSAL/RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD				
						SECONDARY MATERIAL HANDLER				
*TO BE COMPLETED BY THE COGNIZANT OFFICER										

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE							
							MATERIAL NO.	REFERENCE NO.	OTHER					
							78	312						
1		MATERIAL DESCRIPTION					2		CHEMICAL PROPERTIES					
CATEGORY		PLASTIC					MELTING TEMPERATURE		375-500 °F					
NAME		POLYSTYRENE					COMBUSTION TEMPERATURE		880 °F					
COMMON NAME (FORM)		STYROFOAM (FOAM)					HEAT OF COMBUSTION		17,000-17,500 BTU/LB					
USES		CUSHIONING					MATERIAL DENSITY		64.90-88.02 LB/CU.FT.					
FEDERAL/MILITARY SPECIFICATION NUMBER		PPP-C-850					BULK DENSITY		.4-1.2 LB/CU.FT.					
COMPOSITION							3		CHARACTERISTICS					
							FRAGMENTABILITY		EXCELLENT					
4		DISPOSAL RATING SUMMARY					SEPARABILITY		POOR					
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	COMPACTIBILITY		FAIR				
REUSE		A	3.0	10.0	6.5	3		COMBUSTIBILITY		POOR				
RECYCLE		A B	4.0	9.0	6.5	3		TOXICITY		EXCELLENT (SEE PRECAUTIONS)				
PYROLYSIS		A C	4.8	7.8	6.3	4		BIOLOGICAL DEGRADABILITY		POOR				
COMPOSTING		A C	4.2	7.8	6.0	5		CHEMICAL DEGRADABILITY		POOR				
BALING		B	6.4	7.8	7.1	1		REUSABILITY		FAIR				
INCINERATION		A C	5.3	6.2	5.8	6		5*		SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS				
SANITARY LANDFILL		B	5.7	7.4	6.6	2		PRODUCES HARMFUL GASES AND OFFENSIVE ODORS WHEN INCINERATED						
SEA DISPOSAL		B	4.2	4.2	4.2	7								
PRE-PROCESSES:		A - SEPARATION B - COMPACTION C - SHREDDING												
6*		HANDLING DATA					8*		OFF-BASE DISPOSAL/PROCESSING DATA		10*		NOTES AND COMMENTS	
METHOD OF STORAGE/COLLECTION							DISPOSAL/PROCESSING METHOD							
							SECONDARY MATERIAL HANDLER							
7*		ON-BASE DISPOSAL/RECLAMATION DATA					9*		OFF-BASE DISPOSAL/RECYCLING DATA					
DISPOSAL/RECLAMATION METHOD							DISPOSAL/RECYCLING METHOD							
							SECONDARY MATERIAL HANDLER							
												*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							79	313		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY		PLASTIC					MELTING TEMPERATURE		375-500 °F	
NAME		POLYSTYRENE					COMBUSTION TEMPERATURE		880 °F	
COMMON NAME (FORM)		STYROFOAM (PELLETS)					HEAT OF COMBUSTION		17,000- 17,500 BTU LB	
USES		DUNNAGE					MATERIAL DENSITY		64.90- 68.02 LB CU.FT.	
FEDERAL/ MILITARY SPECIFICATION NUMBER		MIL-P-19844					BULK DENSITY		1-3 LB CU.FT.	
COMPOSITION							3	CHARACTERISTICS		
							FRAGMENTABILITY		EXCELLENT	
							SEPARABILITY		POOR	
							COMPACTIBILITY		FAIR	
							COMBUSTIBILITY		POOR	
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)	
							BIOLOGICAL DEGRADABILITY		POOR	
							CHEMICAL DEGRADABILITY		POOR	
							REUSABILITY		UNSATISFACTORY	
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
							PRODUCES HARMFUL GASES AND OFFENSIVE ODORS WHEN INCINERATED			
4 DISPOSAL RATING SUMMARY										
METHOD OF		OPERA- TIONAL RATING	ENVIRON- MENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO- NOMIC RANKING				
DISPOSAL	PRE- PROCESS									
REUSE	A	2.0	10.0	6.0	5					
RECYCLE	A B	3.6	9.0	6.3	3					
PYROLYSIS	A C	4.6	7.8	6.2	4					
COMPOSTING	A C	4.0	7.8	5.9	6					
BALING	B	6.4	7.8	7.1	1					
INCINERATION	A C	5.2	6.2	5.7	7					
SANITARY LANDFILL	B	5.7	7.4	6.6	2					
SEA DISPOSAL	B	4.2	4.2	4.2	8					
PRE-PROCESSES:		A - SEPARATION B - COMPACTION C - SHREDDING								
6*	HANDLING DATA			8*	OFF-BASE DISPOSAL/ PROCESSING DATA			10*	NOTES AND COMMENTS	
METHOD OF STORAGE/COLLECTION				DISPOSAL/PROCESSING METHOD						
				SECONDARY MATERIAL HANDLER						
				SECONDARY MATERIAL HANDLER						
7*	ON-BASE DISPOSAL/ RECLAMATION DATA			9*	OFF-BASE DISPOSAL/ RECYCLING DATA					
DISPOSAL/RECLAMATION METHOD				DISPOSAL/RECYCLING METHOD						
				SECONDARY MATERIAL HANDLER						
* TO BE COMPLETED BY THE COGNIZANT OFFICER										

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							80	314	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY		PLASTIC					MELTING TEMPERATURE		850-750 °F
NAME		POLYSULPHONE					COMBUSTION TEMPERATURE		- °F
COMMON NAME (FORM)		POLYSULPHONE (SOLID STOCK)					HEAT OF COMBUSTION		8000-11,000 BTU/LB
USES		TRAYS, CONTAINERS					MATERIAL DENSITY		77.38 LB/CU.FT.
FEDERAL/MILITARY SPECIFICATION NUMBER		MIL-P-46120					BULK DENSITY		2-5 LB/CU.FT.
COMPOSITION							3 CHARACTERISTICS		
							FRAGMENTABILITY		GOOD
							SEPARABILITY		FAIR
							COMPACTIBILITY		GOOD
							COMBUSTIBILITY		POOR
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)
							BIOLOGICAL DEGRADABILITY		POOR
							CHEMICAL DEGRADABILITY		POOR
							REUSABILITY		GOOD
							5* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
							PRODUCES OXIDES OF SULPHUR IN CONJUNCTION WITH OTHER HARMFUL GASES WHEN INCINERATED		
4 DISPOSAL RATING SUMMARY									
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO-NOMIC RANKING		
REUSE		A	4.5	10.0	7.3	2			
RECYCLE		A/B	4.4	9.0	6.7	3			
PYROLYSIS		A/C	4.8	7.8	6.3	4			
COMPOSTING		A/C	4.2	7.8	6.0	5			
BALING		B	7.0	7.8	7.4	1			
INCINERATION		A/C	5.2	6.2	5.7	6			
SANITARY LANDFILL		B	6.0	7.4	6.7	3			
SEA DISPOSAL		B	4.5	4.2	4.4	7			
PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING									
6* HANDLING DATA		8* OFF-BASE DISPOSAL/ PROCESSING DATA					10* NOTES AND COMMENTS		
METHOD OF STORAGE/COLLECTION		DISPOSAL/PROCESSING METHOD							
		SECONDARY MATERIAL HANDLER							
7* ON-BASE DISPOSAL/ RECLAMATION DATA		9* OFF-BASE DISPOSAL/ RECYCLING DATA							
DISPOSAL/RECLAMATION METHOD		DISPOSAL/RECYCLING METHOD							
		SECONDARY MATERIAL HANDLER							
							*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							81	315	
1 MATERIAL DESCRIPTION							2 CHEMICAL PROPERTIES		
CATEGORY		PLASTIC					MELTING TEMPERATURE		620 °F
NAME		POLYTETRAFLUOROETHYLENE					COMBUSTION TEMPERATURE		- °F
COMMON NAME (FORM)		TEFLON, TFE-FLUOROCARBON RESIN (SHEET)					HEAT OF COMBUSTION		- BTU/LB
USES		WRAPPING					MATERIAL DENSITY		120-130 LB/CU.FT.
FEDERAL/MILITARY SPECIFICATION NUMBER		MIL-P-22241					BULK DENSITY		100-130 LB/CU.FT.
COMPOSITION		-					3 CHARACTERISTICS		
							FRAGMENTABILITY		EXCELLENT
							SEPARABILITY		POOR
							COMPACTIBILITY		FAIR
							COMBUSTIBILITY		UNSATISFACTORY
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)
							BIOLOGICAL DEGRADABILITY		POOR
							CHEMICAL DEGRADABILITY		POOR
							REUSABILITY		UNSATISFACTORY
							5* SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS		
							PRODUCES HALOGENATED COMPOUNDS WHEN INCINERATED		
4 DISPOSAL RATING SUMMARY									
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING		
REUSE		A	2.0	10.0	6.0	5			
RECYCLE		A B	3.6	9.0	6.3	3			
PYROLYSIS		A C	4.6	7.8	6.2	4			
COMPOSTING		A C	4.0	7.8	5.9	6			
BALING		B	5.6	7.8	6.7	2			
INCINERATION		A C	4.7	6.2	5.5	7			
SANITARY LANDFILL		B	6.3	7.4	6.9	1			
SEA DISPOSAL		B	4.8	4.2	4.5	8			
PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING									
6* HANDLING DATA		8* OFF-BASE DISPOSAL/PROCESSING DATA				10* NOTES AND COMMENTS			
METHOD OF STORAGE/COLLECTION		DISPOSAL/PROCESSING METHOD							
		SECONDARY MATERIAL HANDLER							
7* ON-BASE DISPOSAL/RECLAMATION DATA		9* OFF-BASE DISPOSAL/RECYCLING DATA							
DISPOSAL/RECLAMATION METHOD		DISPOSAL/RECYCLING METHOD							
		SECONDARY MATERIAL HANDLER							
						*TO BE COMPLETED BY THE COGNIZANT OFFICER			

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE NO.	OTHER
							82	316	
1 MATERIAL DESCRIPTION							2 CHEMICAL PROPERTIES		
CATEGORY		PLASTIC					MELTING TEMPERATURE		620 °F
NAME		POLYTETRAFLUOROETHYLENE					COMBUSTION TEMPERATURE		- °F
COMMON NAME (FORM)		TEFLON (SOLID STOCK)					HEAT OF COMBUSTION		- BTU/LB
USES		CONTAINERS					MATERIAL DENSITY		120-130 LB/CU.FT.
FEDERAL/MILITARY SPECIFICATION NUMBER		L-P-403					BULK DENSITY		20-30 LB/CU.FT.
COMPOSITION		-					3 CHARACTERISTICS		
							FRAGMENTABILITY		GOOD
							SEPARABILITY		FAIR
							COMPACTIBILITY		GOOD
							COMBUSTIBILITY		UNSATISFACTORY
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)
							BIOLOGICAL DEGRADABILITY		POOR
							CHEMICAL DEGRADABILITY		POOR
							REUSABILITY		GOOD
4 DISPOSAL RATING SUMMARY							5* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING		
REUSE		A	4.5	10.0	7.3	1			
RECYCLE		A/B	4.4	9.0	6.7	3			
PYROLYSIS		A/C	4.8	7.8	6.3	5			
COMPOSTING		A/C	4.2	7.8	6.0	6			
BALING		B	5.2	7.8	6.5	4			
INCINERATION		A/C	4.7	6.2	5.5	7			
SANITARY LANDFILL		B	6.6	7.4	7.0	2			
SEA DISPOSAL		B	5.1	4.2	4.7	8			
PRE-PROCESSES:		A - SEPARATION B - COMPACTION C - SHREDDING							
6* HANDLING DATA							8* OFF-BASE DISPOSAL/ PROCESSING DATA		10* NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION							DISPOSAL/PROCESSING METHOD		
							SECONDARY MATERIAL HANDLER		
7* ON-BASE DISPOSAL/ RECLAMATION DATA							9* OFF-BASE DISPOSAL/ RECYCLING DATA		*TO BE COMPLETED BY THE COGNIZANT OFFICER
DISPOSAL/RECLAMATION METHOD							DISPOSAL/RECYCLING METHOD		
							SECONDARY MATERIAL HANDLER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							83	317		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY		PLASTIC					MELTING TEMPERATURE		300-375 °F	
NAME		POLYURETHANE					COMBUSTION TEMPERATURE		700-800 °F	
COMMON NAME (FORM)		POLYURETHANE (FILM)					HEAT OF COMBUSTION		11,000-12,000 BTU/LB	
USES		WRAPPING					MATERIAL DENSITY		69.89-74.88 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER		MIL-P-43804					BULK DENSITY		60-70 LB/CU.FT.	
COMPOSITION							3 CHARACTERISTICS			
							FRAGMENTABILITY		EXCELLENT	
							SEPARABILITY		POOR	
							COMPACTIBILITY		FAIR	
							COMBUSTIBILITY		POOR	
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)	
							BIOLOGICAL DEGRADABILITY		POOR	
							CHEMICAL DEGRADABILITY		FAIR	
							REUSABILITY		UNSATISFACTORY	
							5° SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS			
							PRODUCES OFFENSIVE ODORS WHEN INCINERATED			
4 DISPOSAL RATING SUMMARY										
METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECOLOGIC RANKING *				
DISPOSAL	PRE-PROCESS									
REUSE	A	2.5	10.0	6.3	4					
RECYCLE	A B	4.0	9.0	6.5	3					
PYROLYSIS	A C	4.8	7.8	6.3	4					
COMPOSTING	A C	4.2	7.8	6.0	5					
BALING	B	5.6	7.8	6.7	1					
INCINERATION	A C	5.3	6.2	5.8	6					
SANITARY LANDFILL	B	5.7	7.4	6.6	2					
SEA DISPOSAL	B	4.2	4.2	4.2	7					
PRE-PROCESSES:										
A - SEPARATION										
B - COMPACTION										
C - SHREDDING										
6°	HANDLING DATA					8°	OFF-BASE DISPOSAL/PROCESSING DATA		10°	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD				
						SECONDARY MATERIAL HANDLER				
7°	ON-BASE DISPOSAL/RECLAMATION DATA					9°	OFF-BASE DISPOSAL/RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD				
						SECONDARY MATERIAL HANDLER				

*TO BE COMPLETED BY THE COGNIZANT OFFICER

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							84	318	
1 MATERIAL DESCRIPTION							2 CHEMICAL PROPERTIES		
CATEGORY		PLASTIC					MELTING TEMPERATURE		185-350 °F
NAME		POLYURETHANE					COMBUSTION TEMPERATURE		700-800 °F
COMMON NAME (FORM)		POLYURETHANE (FOAM)					HEAT OF COMBUSTION		11,000-12,000 BTU/LB
USES		CUSHIONING					MATERIAL DENSITY		65.52-93.60 LB/CU.FT.
FEDERAL/MILITARY SPECIFICATION NUMBER		MIL-P-26514					BULK DENSITY		.8-30 LB/CU.FT.
COMPOSITION							3 CHARACTERISTICS		
							FRAGMENTABILITY		EXCELLENT
							SEPARABILITY		POOR
							COMPACTIBILITY		FAIR
							COMBUSTIBILITY		POOR
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)
							BIOLOGICAL DEGRADABILITY		POOR
							CHEMICAL DEGRADABILITY		FAIR
							REUSABILITY		FAIR
							5* SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS		
							PRODUCES OFFENSIVE ODORS WHEN INCINERATED		
4 DISPOSAL RATING SUMMARY									
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO-NOMIC RANKING		
REUSE		A	2.5	10.0	6.3	3			
RECYCLE		A B	3.6	9.0	6.3	3			
PYROLYSIS		A C	4.6	7.8	6.2	4			
COMPOSTING		A C	4.0	7.8	5.9	6			
BALING		B	7.4	7.8	7.6	1			
INCINERATION		A C	5.7	6.2	6.0	5			
SANITARY LANDFILL		B	5.7	7.4	6.6	2			
SEA DISPOSAL		B	4.2	4.2	4.2	7			
PRE-PROCESSES							A - SEPARATION B - COMPACTION C - SHREDDING		
6* HANDLING DATA		8* OFF-BASE DISPOSAL/PROCESSING DATA					10* NOTES AND COMMENTS		
METHOD OF STORAGE/COLLECTION		DISPOSAL/PROCESSING METHOD							
		SECONDARY MATERIAL HANDLER							
7* ON-BASE DISPOSAL/RECLAMATION DATA		9* OFF-BASE DISPOSAL/RECYCLING DATA							
DISPOSAL/RECLAMATION METHOD		DISPOSAL/RECYCLING METHOD							
		SECONDARY MATERIAL HANDLER							
							*TO BE COMPLETED BY THE COGNIZANT OFFICE		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							85	319		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY		PLASTIC					MELTING TEMPERATURE		300-375 °F	
NAME		POLYURETHANE					COMBUSTION TEMPERATURE		700-800 °F	
COMMON NAME (FORM)		POLYURETHANE (SOLID STOCK)					HEAT OF COMBUSTION		11,000-12,000 BTU/LB	
USES		CONTAINERS					MATERIAL DENSITY		65.52-93.60 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER		MIL-M-24041 MIL-C-38226					BULK DENSITY		2-5 LB/CU.FT.	
COMPOSITION							3	CHARACTERISTICS		
							FRAGMENTABILITY		GOOD	
							SEPARABILITY		FAIR	
							COMPACTIBILITY		GOOD	
							COMBUSTIBILITY		POOR	
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)	
							BIOLOGICAL DEGRADABILITY		POOR	
							CHEMICAL DEGRADABILITY		FAIR	
							REUSABILITY		GOOD	
4	DISPOSAL RATING SUMMARY						6	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	PRODUCES OFFENSIVE ODORS WHEN INCINERATED			
DISPOSAL	PRE-PROCESS									
REUSE	A	4.5	10.0	7.3	2					
RECYCLE	A B	4.4	9.0	6.7	4					
PYROLYSIS	A C	4.8	7.8	6.3	5					
COMPOSTING	A C	4.2	7.8	6.0	6					
BALING	B	7.0	7.8	7.4	1					
INCINERATION	A C	5.7	6.2	6.0	6					
SANITARY LANDFILL	B	6.2	7.4	6.8	3					
SEA DISPOSAL	B	4.7	4.2	4.5	7					
PRE-PROCESSES:		A - SEPARATION B - COMPACTION C - SHREDDING								
6	HANDLING DATA					8	OFF-BASE DISPOSAL/ PROCESSING DATA		10	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD				
						SECONDARY MATERIAL HANDLER				
7	ON-BASE DISPOSAL/ RECLAMATION DATA					9	OFF-BASE DISPOSAL/ RECYCLING DATA		*TO BE COMPLETED BY THE COGNIZANT OFFICER	
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD				
						SECONDARY MATERIAL HANDLER				

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE																																																																			
							MATERIAL NO.	REFERENCE PG.	OTHER																																																																	
							86	320																																																																		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES																																																																		
CATEGORY	PLASTIC						MELTING TEMPERATURE	375-490 °F																																																																		
NAME	POLYVINYL ALCOHOL						COMBUSTION TEMPERATURE	680 °F																																																																		
COMMON NAME (FORM)	PVA (SHEET)						HEAT OF COMBUSTION	10,760 BTU/LB																																																																		
USES	WRAPPING						MATERIAL DENSITY	75.50-81.74 LB/CU.FT.																																																																		
FEDERAL/MILITARY SPECIFICATION NUMBER							BULK DENSITY	20-60 LB/CU.FT.																																																																		
COMPOSITION							3	CHARACTERISTICS																																																																		
4 DISPOSAL RATING SUMMARY <table border="1"> <thead> <tr> <th colspan="2">METHOD OF</th> <th rowspan="2">OPERATIONAL RATING</th> <th rowspan="2">ENVIRONMENTAL RATING</th> <th rowspan="2">TOTAL DISPOSAL RATING</th> <th rowspan="2">TOTAL DISPOSAL RANKING</th> <th rowspan="2">ECONOMIC RANKING</th> </tr> <tr> <th>DISPOSAL</th> <th>PRE-PROCESS</th> </tr> </thead> <tbody> <tr> <td>REUSE</td> <td>A</td> <td>2.0</td> <td>10.0</td> <td>6.0</td> <td>6</td> <td></td> </tr> <tr> <td>RECYCLE</td> <td>A/B</td> <td>3.6</td> <td>9.0</td> <td>6.3</td> <td>4</td> <td></td> </tr> <tr> <td>PYROLYSIS</td> <td>A/C</td> <td>4.6</td> <td>7.8</td> <td>6.2</td> <td>5</td> <td></td> </tr> <tr> <td>COMPOSTING</td> <td>A/C</td> <td>4.0</td> <td>7.8</td> <td>5.9</td> <td>7</td> <td></td> </tr> <tr> <td>BALING</td> <td>B</td> <td>6.0</td> <td>7.8</td> <td>6.9</td> <td>1</td> <td></td> </tr> <tr> <td>INCINERATION</td> <td>A/C</td> <td>6.7</td> <td>6.2</td> <td>6.5</td> <td>3</td> <td></td> </tr> <tr> <td>SANITARY LANDFILL</td> <td>B</td> <td>5.9</td> <td>7.4</td> <td>6.7</td> <td>2</td> <td></td> </tr> <tr> <td>SEA DISPOSAL</td> <td>B</td> <td>4.4</td> <td>4.2</td> <td>4.3</td> <td>8</td> <td></td> </tr> </tbody> </table> <p>PRE-PROCESSES: A = SEPARATION B = COMPACTION C = SHREDDING</p>							METHOD OF		OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	DISPOSAL	PRE-PROCESS	REUSE	A	2.0	10.0	6.0	6		RECYCLE	A/B	3.6	9.0	6.3	4		PYROLYSIS	A/C	4.6	7.8	6.2	5		COMPOSTING	A/C	4.0	7.8	5.9	7		BALING	B	6.0	7.8	6.9	1		INCINERATION	A/C	6.7	6.2	6.5	3		SANITARY LANDFILL	B	5.9	7.4	6.7	2		SEA DISPOSAL	B	4.4	4.2	4.3	8		FRAGMENTABILITY	EXCELLENT	
							METHOD OF							OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING																																																								
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							PYROLYSIS	A/C	4.6	7.8	6.2	5																																																														
							COMPOSTING	A/C	4.0	7.8	5.9	7																																																														
							BALING	B	6.0	7.8	6.9	1																																																														
INCINERATION	A/C	6.7	6.2	6.5	3																																																																					
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				SECONDARY MATERIAL HANDLER																																																																						

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							87	321	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	PLASTIC						MELTING TEMPERATURE	285-400 °F	
NAME	POLYVINYL ACETATE						COMBUSTION TEMPERATURE	700 °F	
COMMON NAME (FORM)	PVAC (SHEET)						HEAT OF COMBUSTION	8830 BTU/LB	
USES	WRAPPING						MATERIAL DENSITY	64.90- 68.64 LB/CU.FT.	
FEDERAL/ MILITARY SPECIFICATION NUMBER	L-P-535						BULK DENSITY	20-60 LB/CU.FT.	
COMPOSITION							3	CHARACTERISTICS	
							FRAGMENTABILITY	EXCELLENT	
							SEPARABILITY	POOR	
							COMPACTIBILITY	FAIR	
							COMBUSTIBILITY	POOR	
							TOXICITY	EXCELLENT (SEE PRECAUTIONS)	
							BIOLOGICAL DEGRADABILITY	POOR	
							CHEMICAL DEGRADABILITY	POOR	
							REUSABILITY	UNSATISFACTORY	
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS	
							PRODUCES OFFENSIVE ODORS WHEN INCINERATED		
DISPOSAL RATING SUMMARY									
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING		
REUSE	A	2.0	10.0	6.0	5				
RECYCLE	A B	3.6	9.0	6.3	3				
PYROLYSIS	A C	4.6	7.8	6.2	4				
COMPOSTING	A C	4.0	7.8	5.9	6				
BALING	B	6.0	7.8	6.9	1				
INCINERATION	A C	5.2	6.2	5.7	7				
SANITARY LANDFILL	B	5.7	7.4	6.6	2				
SEA DISPOSAL	B	4.2	4.2	4.2	8				
PRE-PROCESSES:							A - SEPARATION B - COMPACTION C - SHREDDING		
6*	HANDLING DATA				8*	OFF-BASE DISPOSAL/ PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION					DISPOSAL/PROCESSING METHOD				
					SECONDARY MATERIAL HANDLER				
7*	ON-BASE DISPOSAL/ RECLAMATION DATA				9*	OFF-BASE DISPOSAL/ RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD					DISPOSAL/RECYCLING METHOD				
					SECONDARY MATERIAL HANDLER				
* TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							88	322	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	PLASTIC						MELTING TEMPERATURE	300-350 °F	
NAME	POLYVINYL CHLORIDE						COMBUSTION TEMPERATURE	700-800 °F	
COMMON NAME (FORM)	PVC (SHEET)						HEAT OF COMBUSTION	7500-9000 BTU/LB	
USES	WRAPPING, POUCHES, WATERPROOF COVERS						MATERIAL DENSITY	80-90 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER	L-P-375						BULK DENSITY	20-80 LB/CU.FT.	
COMPOSITION							3	CHARACTERISTICS	
							FRAGMENTABILITY	EXCELLENT	
							SEPARABILITY	POOR	
							COMPACTIBILITY	FAIR	
							COMBUSTIBILITY	POOR	
							TOXICITY	EXCELLENT (SEE PRECAUTIONS)	
							BIOLOGICAL DEGRADABILITY	POOR	
							CHEMICAL DEGRADABILITY	POOR	
							REUSABILITY	UNSATISFACTORY	
							5*	SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS	
							PRODUCES HCL GAS WHEN INCINERATED		
4							DISPOSAL RATING SUMMARY		
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO-NOMIC RANKING		
REUSE		A	2.0	10.0	6.0	5			
RECYCLE		A B	3.6	9.0	6.3	3			
PYROLYSIS		A C	4.6	7.8	6.2	4			
COMPOSTING		A C	4.0	7.8	5.9	6			
BALING		B	6.0	7.8	6.9	1			
INCINERATION		A C	5.7	6.2	6.0	5			
SANITARY LANDFILL		B	6.1	7.4	6.8	2			
SEA DISPOSAL		B	4.6	4.2	4.4	7			
PRE-PROCESSES:							A - SEPARATION B - COMPACTION C - SHREDDING		
6*	HANDLING DATA						8*	OFF-BASE DISPOSAL/PROCESSING DATA	
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD			
						SECONDARY MATERIAL HANDLER			
7*	ON-BASE DISPOSAL/RECLAMATION DATA						9*	OFF-BASE DISPOSAL/RECYCLING DATA	
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD			
						SECONDARY MATERIAL HANDLER			
							*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							89	323	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	PLASTIC						MELTING TEMPERATURE	250-375 °F	
NAME	POLYVINYL CHLORIDE						COMBUSTION TEMPERATURE	700-800 °F	
COMMON NAME (FORM)	PVC (SOLID STOCK)						HEAT OF COMBUSTION	4315 BTU/LB	
USES	CONTAINERS, BLISTER PACKAGES, LINERS						MATERIAL DENSITY	99.22-106.70 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER	L-P-535						BULK DENSITY	90-100 LB/CU.FT.	
COMPOSITION	-						3	CHARACTERISTICS	
							FRAGMENTABILITY	GOOD	
							SEPARABILITY	FAIR	
							COMPACTIBILITY	GOOD	
							COMBUSTIBILITY	POOR	
							TOXICITY	EXCELLENT (SEE PRECAUTIONS)	
							BIOLOGICAL DEGRADABILITY	POOR	
							CHEMICAL DEGRADABILITY	POOR	
							REUSABILITY	GOOD	
							5*	SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS	
							PRODUCES HYDROCHLORIC ACID GAS WHEN INCINERATED		
DISPOSAL RATING SUMMARY									
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *		
REUSE		A	4.5	10.0	7.3	1			
RECYCLE		B	4.4	9.0	6.7	3			
PYROLYSIS		C	4.8	7.8	6.3	4			
COMPOSTING		A	4.2	7.8	6.0	5			
BALING		B	5.6	7.8	6.7	3			
INCINERATION		C	5.7	6.2	6.0	5			
SANITARY LANDFILL		B	6.4	7.4	6.9	2			
SEA DISPOSAL		B	4.9	4.2	4.6	6			
PRE-PROCESSES:							A - SEPARATION B - COMPACTION C - SHREDDING		
6*	HANDLING DATA				8*	OFF-BASE DISPOSAL/ PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION					DISPOSAL/PROCESSING METHOD				
					SECONDARY MATERIAL HANDLER				
7*	ON-BASE DISPOSAL/ RECLAMATION DATA				9*	OFF-BASE DISPOSAL/ RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD					DISPOSAL/RECYCLING METHOD				
					SECONDARY MATERIAL HANDLER				

* TO BE COMPLETED BY THE COGNIZANT OFFICEH

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							91	325	
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES	
CATEGORY	PLASTIC						MELTING TEMPERATURE	250-400 °F	
NAME	RUBBER						COMBUSTION TEMPERATURE	- °F	
COMMON NAME (FORM)	LATEX (FOAM)						HEAT OF COMBUSTION	11,000 BTU/LB	
USES	CUSHIONING						MATERIAL DENSITY	50-80 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER	MIL-R-5001						BULK DENSITY	40-80 LB/CU.FT.	
COMPOSITION							3	CHARACTERISTICS	
							FRAGMENTABILITY	EXCELLENT	
							SEPARABILITY	POOR	
							COMPACTIBILITY	FAIR	
							COMBUSTIBILITY	FAIR	
							TOXICITY	EXCELLENT (SEE PRECAUTIONS)	
							BIOLOGICAL DEGRADABILITY	POOR	
							CHEMICAL DEGRADABILITY	POOR	
							REUSABILITY	FAIR	
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS	
							PRODUCES OFFENSIVE ODORS WHEN INCINERATED		
4							DISPOSAL RATING SUMMARY		
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *		
REUSE	A	2.0	10.0	6.0	4				
RECYCLE	A B	1.8	9.0	5.4	8				
PYROLYSIS	A C	4.6	7.8	6.2	3				
COMPOSTING	A C	4.0	7.8	5.9	5				
BALING	B	5.6	7.8	6.7	1				
INCINERATION	A C	6.7	6.2	6.5	2				
SANITARY LANDFILL	B	5.5	7.4	6.5	2				
SEA DISPOSAL	B	2.8	4.2	3.5	7				
PRE-PROCESSES:							A - SEPARATION B - COMPACTION C - SHREDDING		
6*	HANDLING DATA						8*	OFF-BASE DISPOSAL/ PROCESSING DATA	
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD			
						SECONDARY MATERIAL HANDLER			
7*	ON-BASE DISPOSAL/ RECLAMATION DATA						9*	OFF-BASE DISPOSAL/ RECYCLING DATA	
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD			
						SECONDARY MATERIAL HANDLER			
*TO BE COMPLETED BY THE COGNIZANT OFFICER									

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE				
							MATERIAL NO.	REFERENCE PG.	OTHER		
							92	326			
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES			
CATEGORY	TEXTILE						MELTING TEMPERATURE		- °F		
NAME	BOUND FIBER						COMBUSTION TEMPERATURE		880 °F		
COMMON NAME (FORM)	RUBBERIZED HAIR (FIBER)						HEAT OF COMBUSTION		12,500 BTU/LB		
USES	CUSHIONING						MATERIAL DENSITY		78 LB/CU.FT.		
FEDERAL/MILITARY SPECIFICATION NUMBER	PPP-C-1120						BULK DENSITY		10-30 LB/CU.FT.		
COMPOSITION	POLYCHLOROPRENE (NEOPRENE)						3	CHARACTERISTICS			
							FRAGMENTABILITY		EXCELLENT		
							SEPARABILITY		UNSATISFACTORY		
							COMPACTIBILITY		FAIR		
							COMBUSTIBILITY		FAIR		
							TOXICITY		EXCELLENT		
							BIOLOGICAL DEGRADABILITY		POOR		
							CHEMICAL DEGRADABILITY		POOR		
							REUSABILITY		EXCELLENT		
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS			
DISPOSAL RATING SUMMARY											
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *				
REFUSE		A	8.5	10.0	9.3	1					
RECYCLE		A/B	1.4	9.0	5.2	7					
PYROLYSIS		A	4.2	7.8	6.0	5					
COMPOSTING		A	3.8	7.8	5.8	6					
BALING		B	6.4	7.8	7.1	2					
INCINERATION		A	6.1	6.2	6.2	4					
SANITARY LANDFILL		B	5.9	7.4	6.7	3					
SEA DISPOSAL		B	3.4	4.2	3.8	8					
PRE-PROCESSES:							A = SEPARATION B = COMPACTION C = SHREDDING				
6*	HANDLING DATA					8*	OFF-BASE DISPOSAL/ PROCESSING DATA			10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD					
						SECONDARY MATERIAL HANDLER					
7*	ON-BASE DISPOSAL/ RECLAMATION DATA					9*	OFF-BASE DISPOSAL/ RECYCLING DATA				
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD					
						SECONDARY MATERIAL HANDLER					
*TO BE COMPLETED BY THE COGNIZANT OFFICER											

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE		
							MATERIAL NO.	REFERENCE PG.	OTHER
							93	327	
1 MATERIAL DESCRIPTION							2 CHEMICAL PROPERTIES		
CATEGORY		TEXTILE					MELTING TEMPERATURE		- °F
NAME		CANVASS, RUBBERIZED					COMBUSTION TEMPERATURE		680 °F
COMMON NAME (FORM)		TARP (CLOTH)					HEAT OF COMBUSTION		12,500 $\frac{\text{BTU}}{\text{LB}}$
USES		TARPAULIN					MATERIAL DENSITY		87 $\frac{\text{LB}}{\text{CU.FT.}}$
FEDERAL/ MILITARY SPECIFICATION NUMBER							BULK DENSITY		10-30 $\frac{\text{LB}}{\text{CU.FT.}}$
COMPOSITION							3 CHARACTERISTICS		
							FRAGMENTABILITY		FAIR
							SEPARABILITY		FAIR
							COMPACTIBILITY		EXCELLENT
							COMBUSTIBILITY		FAIR
							TOXICITY		EXCELLENT (SEE PRECAUTIONS)
							BIOLOGICAL DEGRADABILITY		UNSATISFACTORY
							CHEMICAL DEGRADABILITY		UNSATISFACTORY
							REUSABILITY		EXCELLENT
							5* SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
							PRODUCES OFFENSIVE ODORS WHEN INCINERATED		
4 DISPOSAL RATING SUMMARY									
METHOD OF DISPOSAL		PRE- PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO- NOMIC RANKING *		
REUSE		A	8.0	10.0	9.0	1			
RECYCLE		A B	3.0	9.0	6.0	5			
PYROLYSIS		A C	3.6	7.8	5.7	6			
COMPOSTING		A C	3.6	7.8	5.7	6			
BALING		B	7.8	7.8	7.8	2			
INCINERATION		A C	5.7	6.2	6.1	4			
SANITARY LANDFILL		B	6.4	7.4	6.9	3			
SEA DISPOSAL		B	4.9	4.2	4.6	7			
PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING									
6* HANDLING DATA		8* OFF-BASE DISPOSAL/ PROCESSING DATA					10* NOTES AND COMMENTS		
METHOD OF STORAGE/COLLECTION		DISPOSAL/PROCESSING METHOD							
		SECONDARY MATERIAL HANDLER							
7* ON-BASE DISPOSAL/ RECLAMATION DATA		9* OFF-BASE DISPOSAL/ RECYCLING DATA							
DISPOSAL/RECLAMATION METHOD		DISPOSAL/RECYCLING METHOD							
		SECONDARY MATERIAL HANDLER							
							*TO BE COMPLETED BY THE COGNIZANT OFFICER		

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							94	328		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY		TEXTILE					MELTING TEMPERATURE		- °F	
NAME		COTTON					COMBUSTION TEMPERATURE		491 °F	
COMMON NAME (FORM)		COTTON (CLOTH)					HEAT OF COMBUSTION		7652 BTU/LB	
USES		CUSHIONING					MATERIAL DENSITY		95 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER							BULK DENSITY		70 LB/CU.FT.	
COMPOSITION		CELLULOSE					3	CHARACTERISTICS		
							FRAGMENTABILITY		EXCELLENT	
							SEPARABILITY		POOR	
							COMPACTIBILITY		EXCELLENT	
							COMBUSTIBILITY		EXCELLENT	
							TOXICITY		EXCELLENT	
							BIOLOGICAL DEGRADABILITY		GOOD	
							CHEMICAL DEGRADABILITY		EXCELLENT	
							REUSABILITY		UNSATISFACTORY	
4	DISPOSAL RATING SUMMARY						5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS		
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING			
REUSE		A	2.5	10.0	6.3	7				
RECYCLE		A/B	4.8	9.0	6.9	6				
PYROLYSIS		A	7.6	7.8	7.7	3				
COMPOSTING		A	6.4	7.8	7.1	4				
BALING		B	6.2	7.8	7.0	5				
INCINERATION		A	9.3	6.4	7.9	2				
SANITARY LANDFILL		B	9.4	7.2	8.3	1				
SEA DISPOSAL		B	7.4	4.2	5.8	8				
PRE-PROCESSES:		A - SEPARATION B - COMPACTION C - SHREDDING								
6*	HANDLING DATA					8*	OFF-BASE DISPOSAL/ PROCESSING DATA		10*	NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD				
						SECONDARY MATERIAL HANDLER				
						DISPOSAL/RECYCLING METHOD				
						SECONDARY MATERIAL HANDLER				
7*	ON-BASE DISPOSAL/ RECLAMATION DATA					9*	OFF-BASE DISPOSAL/ RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD				
						DISPOSAL/RECYCLING METHOD				
						SECONDARY MATERIAL HANDLER				

*TO BE COMPLETED BY THE
COGNIZANT OFFICER

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE					
							MATERIAL NO.	REFERENCE PG.	OTHER			
							95	329				
1		MATERIAL DESCRIPTION					2		CHEMICAL PROPERTIES			
CATEGORY		TEXTILE					MELTING TEMPERATURE		- °F			
NAME		COTTON					COMBUSTION TEMPERATURE		491 °F			
COMMON NAME (FORM)		COTTON (CLOTH)					HEAT OF COMBUSTION		7652 BTU/LB			
USES		RAGS					MATERIAL DENSITY		95 LB/CU.FT.			
FEDERAL/MILITARY SPECIFICATION NUMBER							BULK DENSITY		70 LB/CU.FT.			
COMPOSITION		CELLULOSE					3		CHARACTERISTICS			
							FRAGMENTABILITY		GOOD			
4		DISPOSAL RATING SUMMARY					SEPARABILITY		POOR			
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING	COMPACTIBILITY		EXCELLENT		
REUSE		A	4.0	10.0	7.0	4		COMBUSTIBILITY		EXCELLENT		
RECYCLE		A B	4.8	9.0	6.9	5		TOXICITY		EXCELLENT		
PYROLYSIS		A C	6.8	7.8	7.3	3		BIOLOGICAL DEGRADABILITY		GOOD		
COMPOSTING		A C	6.0	7.8	6.9	5		CHEMICAL DEGRADABILITY		EXCELLENT		
BALING		B	6.2	7.8	7.0	4		REUSABILITY		GOOD		
INCINERATION		A C	8.9	6.4	7.7	2		5°		SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS		
SANITARY LANDFILL		B	9.2	7.2	8.2	1						
SEA DISPOSAL		B	7.4	4.2	5.8	6						
PRE-PROCESSES:		A = SEPARATION B = COMPACTION C = SHREDDING										
6°		HANDLING DATA				8°		OFF-BASE DISPOSAL/PROCESSING DATA		10°		NOTES AND COMMENTS
METHOD OF STORAGE/COLLECTION						DISPOSAL/PROCESSING METHOD						
						SECONDARY MATERIAL HANDLER						
7°		ON-BASE DISPOSAL/RECLAMATION DATA				9°		OFF-BASE DISPOSAL/RECYCLING DATA				
DISPOSAL/RECLAMATION METHOD						DISPOSAL/RECYCLING METHOD						
						SECONDARY MATERIAL HANDLER						

*TO BE COMPLETED BY THE COGNIZANT OFFICER

[illegible]

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE				
							MATERIAL NO.	REFERENCE PG.	OTHER		
							98	332			
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES			
CATEGORY	TEXTILE						MELTING TEMPERATURE	-			
NAME	JUTE						COMBUSTION TEMPERATURE	510			
COMMON NAME (FORM)	BURLAP (CLOTH)						HEAT OF COMBUSTION	7232 BTU/LB			
USES	SACKS						MATERIAL DENSITY	92 LB/CU.FT.			
FEDERAL/MILITARY SPECIFICATION NUMBER	PPP-B-35 CCC-C-467						BULK DENSITY	70 LB/CU.FT.			
COMPOSITION	LIGNOCELLULOSE MADE FROM JUTE						3	CHARACTERISTICS			
							FRAGMENTABILITY	GOOD			
							SEPARABILITY	POOR			
							COMPACTIBILITY	EXCELLENT			
							COMBUSTIBILITY	EXCELLENT			
							TOXICITY	EXCELLENT			
							BIOLOGICAL DEGRADABILITY	GOOD			
							CHEMICAL DEGRADABILITY	EXCELLENT			
							REUSABILITY	EXCELLENT			
							5*	SPECIAL PRECAUTIONS/ APPLICABLE REGULATIONS			
4	DISPOSAL RATING SUMMARY										
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *				
REUSE	A	6.5	10.0	8.3	1						
RECYCLE	A B	4.8	9.0	6.9	6						
PYROLYSIS	A C	6.8	7.8	7.3	4						
COMPOSTING	A C	6.0	7.8	6.9	6						
BALING	B	6.2	7.8	7.0	5						
INCINERATION	A C	8.9	6.4	7.7	3						
SANITARY LANDFILL	B	8.8	7.2	8.0	2						
SEA DISPOSAL	B	7.0	4.2	5.6	7						
PRE-PROCESSES:		A = SEPARATION B = COMPACTION C = SHREDDING									
6*	HANDLING DATA				8*	OFF-BASE DISPOSAL/ PROCESSING DATA			10*	NOTES AND COMMENTS	
METHOD OF STORAGE/COLLECTION					DISPOSAL/PROCESSING METHOD						
SECONDARY MATERIAL HANDLER											
7*	ON-BASE DISPOSAL/ RECLAMATION DATA				9*	OFF-BASE DISPOSAL/ RECYCLING DATA					
DISPOSAL/RECLAMATION METHOD					DISPOSAL/RECYCLING METHOD						
SECONDARY MATERIAL HANDLER											
										* TO BE COMPLETED BY THE COGNIZANT OFFICER	

[illegible]

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							101	335		
1 MATERIAL DESCRIPTION							2 CHEMICAL PROPERTIES			
CATEGORY		WOOD					MELTING TEMPERATURE		- °F	
NAME		WOOD					COMBUSTION TEMPERATURE		523 °F	
COMMON NAME (FORM)		EXCELSIOR (SHREDS)					HEAT OF COMBUSTION		8500 BTU/LB	
USES		DUNNAGE					MATERIAL DENSITY		26 LB/CU.FT.	
FEDERAL/MILITARY SPECIFICATION NUMBER		PPP-E-911					BULK DENSITY		10 LB/CU.FT.	
COMPOSITION		CELLULOSE (70%) AND LIGNIN (18-28%) (AMERICAN BASEWOOD - HARDWOOD)					3 CHARACTERISTICS			
							FRAGMENTABILITY		EXCELLENT	
							SEPARABILITY		POOR	
							COMPACTIBILITY		EXCELLENT	
							COMBUSTIBILITY		EXCELLENT	
							TOXICITY		EXCELLENT	
							BIOLOGICAL DEGRADABILITY		GOOD	
							CHEMICAL DEGRADABILITY		EXCELLENT	
							REUSABILITY		UNSATISFACTORY	
							5* SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS			
4 DISPOSAL RATING SUMMARY										
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO-NOMIC RANKING *			
REUSE		A	3.0	10.0	6.5	6				
RECYCLE		A B	2.4	9.0	5.7	7				
PYROLYSIS		A	7.6	7.8	7.7	1				
COMPOSTING		A	6.0	7.8	6.9	5				
BALING		B	6.6	7.8	7.2	4				
INCINERATION		A	8.8	6.4	7.6	2				
SANITARY LANDFILL		B	7.5	7.2	7.4	3				
SEA DISPOSAL		B	5.5	4.2	4.9	8				
PRE-PROCESSES: A - SEPARATION B - COMPACTION C - SHREDDING										
6* HANDLING DATA							8* OFF-BASE DISPOSAL/PROCESSING DATA		10* NOTES AND COMMENTS	
METHOD OF STORAGE/COLLECTION							DISPOSAL/PROCESSING METHOD			
							SECONDARY MATERIAL HANDLER			
7* ON-BASE DISPOSAL/RECLAMATION DATA							9* OFF-BASE DISPOSAL/RECYCLING DATA			
DISPOSAL/RECLAMATION METHOD							DISPOSAL/RECYCLING METHOD			
							SECONDARY MATERIAL HANDLER			
									*TO BE COMPLETED BY THE COGNIZANT OFFICER	

SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE																																																																	
							MATERIAL NO.	REFERENCE PG.	OTHER																																																															
							103	337																																																																
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES																																																																
CATEGORY	WOOD						MELTING TEMPERATURE	°F																																																																
NAME	WOOD						COMBUSTION TEMPERATURE	523 °F																																																																
COMMON NAME (FORM)	VENEER (SHEET)						HEAT OF COMBUSTION	9150 $\frac{\text{BTU}}{\text{LB}}$																																																																
USES	CRATES						MATERIAL DENSITY	28 $\frac{\text{LB}}{\text{CU.FT.}}$																																																																
FEDERAL/ MILITARY SPECIFICATION NUMBER	CRATES						BULK DENSITY	7 $\frac{\text{LB}}{\text{CU.FT.}}$																																																																
COMPOSITION	CELLULOSE (70%) AND LIGNIN (18-28%) PONDEROSA PINE AND JEFFRY PINE - SOFTWOOD						3 CHARACTERISTICS																																																																	
4 DISPOSAL RATING SUMMARY <table border="1"> <thead> <tr> <th>METHOD OF DISPOSAL</th> <th>PRE-PROCESS</th> <th>OPERATIONAL RATING</th> <th>ENVIRONMENTAL RATING</th> <th>TOTAL DISPOSAL RATING</th> <th>TOTAL DISPOSAL RANKING</th> <th>ECONOMIC RANKING *</th> </tr> </thead> <tbody> <tr> <td>REUSE</td> <td>A</td> <td>8.0</td> <td>10.0</td> <td>9.0</td> <td>1</td> <td></td> </tr> <tr> <td>RECYCLE</td> <td>A B</td> <td>4.0</td> <td>9.0</td> <td>6.5</td> <td>7</td> <td></td> </tr> <tr> <td>PYROLYSIS</td> <td>A C</td> <td>8.0</td> <td>7.8</td> <td>7.9</td> <td>2</td> <td></td> </tr> <tr> <td>COMPOSTING</td> <td>A C</td> <td>6.8</td> <td>7.8</td> <td>7.3</td> <td>4</td> <td></td> </tr> <tr> <td>BALING</td> <td>B</td> <td>5.4</td> <td>7.8</td> <td>6.6</td> <td>6</td> <td></td> </tr> <tr> <td>INCINERATION</td> <td>A C</td> <td>8.3</td> <td>6.4</td> <td>7.4</td> <td>3</td> <td></td> </tr> <tr> <td>SANITARY LANDFILL</td> <td>B</td> <td>7.2</td> <td>7.2</td> <td>7.2</td> <td>5</td> <td></td> </tr> <tr> <td>SEA DISPOSAL</td> <td>B</td> <td>5.2</td> <td>4.2</td> <td>4.7</td> <td>8</td> <td></td> </tr> </tbody> </table>							METHOD OF DISPOSAL	PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *	REUSE	A	8.0	10.0	9.0	1		RECYCLE	A B	4.0	9.0	6.5	7		PYROLYSIS	A C	8.0	7.8	7.9	2		COMPOSTING	A C	6.8	7.8	7.3	4		BALING	B	5.4	7.8	6.6	6		INCINERATION	A C	8.3	6.4	7.4	3		SANITARY LANDFILL	B	7.2	7.2	7.2	5		SEA DISPOSAL	B	5.2	4.2	4.7	8		FRAGMENTABILITY	GOOD	
							METHOD OF DISPOSAL	PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECONOMIC RANKING *																																																											
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SUMMARY FACT SHEET SOLID WASTE							REFERENCE CODE			
							MATERIAL NO.	REFERENCE PG.	OTHER	
							105	339		
1	MATERIAL DESCRIPTION						2	CHEMICAL PROPERTIES		
CATEGORY	WOOD						MELTING TEMPERATURE	°F		
NAME	WOOD/METAL						COMBUSTION TEMPERATURE	523 °F		
COMMON NAME (FORM)	NAILED OR WIREBOUND WOOD (BOARD)						HEAT OF COMBUSTION	9050 BTU/LB		
USES	CRATES, BOXES						MATERIAL DENSITY	36 LB/CU.FT.		
FEDERAL/MILITARY SPECIFICATION NUMBER	PPP-B-585 MIL-B-2427 PPP-B-587 MIL-B-46506 PPP-B-601 MIL-C-104 PPP-B-621						BULK DENSITY	8 LB/CU.FT.		
COMPOSITION	CELLULOSE (70%) AND LIGNIN (18-28%) INLAND DOUGLAS FIR - SOFTWOOD						3	CHARACTERISTICS		
							FRAGMENTABILITY	UNSATISFACTORY		
							SEPARABILITY	GOOD		
							COMPACTIBILITY	FAIR		
							COMBUSTIBILITY	EXCELLENT		
							TOXICITY	EXCELLENT		
							BIOLOGICAL DEGRADABILITY	GOOD		
							CHEMICAL DEGRADABILITY	EXCELLENT		
							REUSABILITY	EXCELLENT		
							5*	SPECIAL PRECAUTIONS/APPLICABLE REGULATIONS		
4	DISPOSAL RATING SUMMARY									
METHOD OF DISPOSAL		PRE-PROCESS	OPERATIONAL RATING	ENVIRONMENTAL RATING	TOTAL DISPOSAL RATING	TOTAL DISPOSAL RANKING	ECO-NOMIC RANKING *			
REUSE	A		8.0	10.0	9.0	1				
RECYCLE	A B		4.0	9.0	6.5	5				
PYROLYSIS	A C		6.4	7.8	7.1	2				
COMPOSTING	A C		5.2	7.8	6.5	5				
BALING	B		6.2	7.8	7.0	3				
INCINERATION	A C		7.1	6.4	6.8	4				
SANITARY LANDFILL	B		5.3	7.2	6.3	6				
SEA DISPOSAL	B		4.5	4.2	4.4	7				
PRE-PROCESSES:			A - SEPARATION B - COMPACTION C - SHREDDING							
6*	HANDLING DATA				8*	OFF-BASE DISPOSAL/PROCESSING DATA		10*	NOTES AND COMMENTS	
METHOD OF STORAGE/COLLECTION					DISPOSAL/PROCESSING METHOD					
					SECONDARY MATERIAL HANDLER					
7*	ON-BASE DISPOSAL/RECLAMATION DATA				9*	OFF-BASE DISPOSAL/RECYCLING DATA		*TO BE COMPLETED BY THE COGNIZANT OFFICER		
DISPOSAL/RECLAMATION METHOD					DISPOSAL/RECYCLING METHOD					
					SECONDARY MATERIAL HANDLER					

4. SPECIFIC CRITERIA DEVELOPMENT AND METHODOLOGY

This chapter is a comprehensive presentation of:

- The development of the criteria for both solid and chemical packaging wastes
- The methodology employed to determine the total disposal rating for both solid and chemical packaging wastes

4.1 SOLID WASTE CRITERIA DEVELOPMENT

The disposability of solid packaging materials was evaluated by examining each of the following possible processes:

- Reuse
- Recycle
- Pyrolysis
- Composting
- Baling
- Incineration
- Sanitary landfill
- Sea disposal.

The applicability of each of these processes was analyzed to establish an operational rating and an environmental rating for each material.

4.1.1 Operational Rating System

In designing the operational rating system, it was necessary first to determine mutually exclusive material characteristics that have a direct bearing upon the operation of each process. For example, in the process of incineration, material characteristics that bear upon the process are: (1) fragmentability, (2) separability, (3) combustibility, and (4) potential damage to the equipment.

Secondly, for each process, it was necessary to enumerate the relative importance of each characteristic; that is, by comparing all the material characteristics related to each process, those characteristics that are more, equal, or less important than others were determined. Once the qualitative decisions were made, they were quantified as portions of unity (1.0). Using the incineration example, it was determined that combustibility was the most important and therefore a relative importance of 0.5 was assigned. Fragmentability and potential damage to the equipment were determined to be equally weighted and were each assigned a relative importance of 0.2. Lastly, separability had the least effect on the operation and was assigned at relative importance of 0.1. This rationale is depicted in Table 4-1.

4.1.2 Environmental Rating System

The environmental rating system was devised to measure the environmental impact of processing the solid waste material through each disposal alternative. Using this system, the major environmental disruptions were analyzed, that is, the potentials for air pollution, water pollution, land pollution, and resource depletion. As in the operational rating system, relative importance factors based upon portions of unity (1.0) were assigned to each environmental impact. But, unlike the operational rating system, the relative importance factors were equally weighted for each disposal alternative. The rationale for this weighting is that it would not be adequate to just measure what is environmentally good or bad, for this would indicate a qualitative or quantitative bias. Rather, one must take into account the total environmental impact of each process. The exceptions to this rationale are in (1) direct reuse and (2) recycle. In the case of direct reuse, the material would

TABLE 4-1
RELATIVE IMPORTANCE OF
OPERATIONAL DISPOSABILITY CHARACTERISTICS

Characteristics	Direct Reuse	Recycle	Pyrolysis	Compost	Baling	Incineration	Sanitary Landfill	Sea Disposal
Fragmentability	--	--	0.2	0.2	--	0.2	0.1	--
Separability	0.5	0.4	0.2	0.2	--	0.1	--	--
Material Density	--	--	--	--	--	--	0.2	0.2
Compactibility	--	--	--	--	0.4	--	0.4	0.3
Handleability	--	--	--	--	0.6	--	--	--
Combustibility	--	--	--	--	--	0.5	--	--
Chemical and/or Biological Degradability	--	--	0.4	0.4	--	--	0.3	0.3
Market for Commodity	0.5	--	--	--	--	--	--	--
Potential Damage to Equipment	--	--	--	--	--	0.2	--	--
Regulatory or Technical Operating Restrictions	--	0.6	0.2	0.2	--	--	--	0.2
Total	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

be precluded from entering the solid waste stream and, therefore, at the present time would not be disposed of. In the case of recycle, the material most probably would be transported to the issuing industry or secondary industry for recycling. The environmental impact of a disposal process rather than an industry was to be determined and, therefore, recycling was excluded from the above rationale. Yet, direct reuse and recycling were environmentally analyzed, but only in terms of resource depletion potential. The environmental rating system is disclosed in Table 4-2.

4.1.3 Operational and Environmental Rating Definitions

To utilize the aforementioned rating systems, rating and rating code scales ranging in numerical value from 0 to 10 were employed as follows:

<u>Rating</u>	<u>Rating Code</u>
Excellent	9-10
Good	7-8
Fair	5-6
Poor	3-4
Unsatisfactory	0-2

Moreover, for each characteristic and environmental impact, definitions corresponding to each rating and rating code were developed to apply the rating system consistently. Basically, these definitions were used as a guide for classifying the solid waste packaging material on the basis of either a numerically measurable or clearly defined characteristic.

Tables 4-3 to 4-14 enumerate the rating, rating code, and rating definitions for both operational and environmental considerations for each process.

For example, referring to Table 4-5 under the operational rating definition of fragmentability, excelsior, in the form of shreds, would be considered "excellent" because it needs no process for reduction; veneer crate would be considered "good" because it would need only very light equipment for

TABLE 4-2
RELATIVE IMPORTANCE OF ENVIRONMENTAL IMPACT

Environmental Impact	Direct Reuse	Recycle	Pyrolysis	Compost	Baling	Incineration	Sanitary Landfill	Sea Disposal
Air Pollution Potential	-	-	0.2	0.2	0.2	0.2	0.2	0.2
Water Pollution Potential	-	-	0.2	0.2	0.2	0.2	0.2	0.2
Land Pollution Potential	-	-	0.2	0.2	0.2	0.2	0.2	0.2
Resource Depletion Potential	1.0	1.0	0.4	0.4	0.4	0.4	0.4	0.4
Total	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

TABLE 4 -3

OPERATIONAL RATING DEFINITIONS OF DIRECT REUSE

Rating	Rating Code	Separability	Market for Commodity*
Excellent	9-10	Sorting is possible by mechanical means	Market for the commodity exists and may be supplied with little or no re-processing of the commodity
Good	7-8	Mechanical sorting is possible but must be supplemented by manual sorting	Market exists for the commodity, but seller must sort commodity into grades or types before it is salable
Fair	5-6	Mechanical sorting is impracticable; can be easily sorted by manual means	Market exists, but seller must process the commodity by cleaning, renovating, etc.
Poor	3-4	Mechanical sorting is impracticable; cannot be easily sorted by manual means	Market does not exist for the commodity but may be a possibility via extensive processing
Unsatisfactory	0-2	Mechanical and manual sorting is impracticable	Market does not exist for the commodity and is unlikely to develop

* Distribution of commodity into marketplace would not alter local, regional, or national markets.

TABLE 4-4
OPERATIONAL RATING DEFINITIONS OF RECYCLE

Rating	Rating Code	Separability	Technical Operating Restrictions
Excellent	9-10	Sorting is possible by mechanical means	The waste material can be used directly in place of virgin material or feedstock in existing production process; the new product is of high quality
Good	7-8	Mechanical sorting is possible but must be supplemented by manual sorting	The waste material can be used with preprocessing along with virgin material or feedstock in existing production process; the new product is of high quality
Fair	5-6	Mechanical sorting is impracticable; can be easily sorted by manual means	The waste material can be used with preprocessing along with virgin material or feedstock in existing production process; the new product is of low quality
Poor	3-4	Mechanical sorting is impracticable; cannot be easily sorted by manual means	The waste material can be used with preprocessing along with virgin material or feedstock in a process that is not currently used in the industry
Unsatisfactory	0-2	Mechanical and manual sorting is impracticable	The waste material cannot be used as any kind of feedstock

TABLE 4-5
OPERATIONAL RATING DEFINITIONS OF PYROLYSIS

Rating	Rating Code	Fragmentability	Separability	Chemical Degradability	Technical Operating Restrictions
Excellent	9-10	Material needs no process for reduction	Sorting is possible by mechanical means	Material will easily decompose by chemical action	Process is widely used for solid waste application
Good	7-8	Material needs very light equipment or manual shredding for reduction	Mechanical sorting is possible but must be supplemented by manual sorting	Material will slowly decompose by chemical action	Process requires modification of off-the-shelf equipment to be used for solid waste application
Fair	5-6	Material must be reduced by light equipment	Mechanical sorting is impracticable; can be easily sorted by manual means	Material is partially degradable by chemical action	Process is a pilot scale model for general solid waste application
Poor	3-4	Material requires heavy equipment for reduction	Mechanical sorting is impracticable; cannot be easily sorted by manual means	Material is highly resistant to chemical degradability	Process is a pilot scale model for specialized solid waste application
Unsatisfactory	0-2	Material requires specialized equipment for reduction	Mechanical and manual sorting is impracticable	Material is virtually indestructible; will not degrade	Process is a laboratory scale model

TABLE 4 - 6
OPERATIONAL RATING DEFINITIONS OF COMPOST

Rating	Rating Code	Fragmentability	Separability	Biological Degradability	Technical Operating Restrictions
Excellent	9-10	Needs no process for material reduction	Sorting is possible by mechanical means	Material will degrade easily by biological action	Process is widely used for solid waste application
Good	7-8	Needs very light equipment or manual shredding for material reduction	Mechanical sorting is possible but must be supplemented by hand sorting	Material will slowly decompose by biological action	Process requires modification to off-the-shelf equipment to be used for solid waste application
Fair	5-6	Material must be reduced by light equipment	Mechanical sorting is impracticable; can be easily sorted by manual means	Material will partially decompose by the addition of chemicals	Process is a pilot scale model for general solid waste application
Poor	3-4	Requires heavy equipment for material reduction	Mechanical sorting is impracticable; cannot be easily sorted by manual means	Material will not decompose but may be left in the compost	Process is a pilot scale model for specialized solid waste application
Unsatisfactory	0-2	Requires specialized equipment for material reduction	Mechanical and manual sorting is impracticable	Material will not degrade and is an undesirable component of compost	Process is a laboratory scale model

TABLE 4-7
OPERATIONAL RATING DEFINITIONS OF BALING

Rating	Rating Code	Compactibility	Baleability
Excellent	9-10	10 and above	Deforms easily under pressure and retains compacted form after pressure is released
Good	7-8	8-10	Deforms with some difficulty and retains compacted form after pressure is released
Fair	5-6	5-7	Deforms easily but springs back when pressure is released
Poor	3-4	3-4	Deforms with some difficulty but springs back when pressure is released
Unsatisfactory	0-2	1-2	Cannot effectively be compacted

TABLE 4-8
OPERATIONAL RATING DEFINITIONS OF INCINERATION

Rating	Rating Code	Fragmentability	Separability	Burning Rate (Combustibility)	Potential Damage to Equipment From Materials
Excellent	9-10	Material needs no process for reduction	Sorting is possible by mechanical means	Very high	None
Good	7-8	Material needs very light equipment or manual shredding for reduction	Mechanical sorting is possible but must be supplemented by manual sorting	High	None when incinerator is operated properly
Fair	5-6	Material may be reduced by light equipment	Mechanical sorting is impracticable; can be easily sorted by manual means	Low	Can sometimes disturb system operations
Poor	3-4	Material requires heavy equipment for reduction	Mechanical sorting is impracticable; cannot be easily sorted by manual means	Self-extinguishing	Seriously disturbs systems operations
Unsatisfactory	0-2	Material requires specialized equipment for reduction	Mechanical and manual sorting is impracticable	Nil	Damage is catastrophic and causes plant shutdown.

TABLE 4 - 9

OPERATIONAL RATING DEFINITIONS OF SANITARY LANDFILL

Rating	Rating Code	Fragmentability	Material Density (lb/ft. ³)	Compactibility	Biological Degradability
Excellent	9-10	Materials need no process for reduction	100 or above	Deforms or crushes easily under pressure and retains compacted form after pressure is released	Material will easily disintegrate in soil by bacterial action
Good	7- 8	Material needs very light equipment or manual shredding for reduction	70 to 100	Deforms easily but springs back when pressure is released	Material will slowly degrade by bacterial action
Fair	5- 6	Material may be reduced by light equipment	50 to 70	Deforms with difficulty	Material will decompose by chemical action
Poor	3- 4	Material requires heavy equipment for reduction	31 to 50	Deforms but requires special handling	Material is highly resistant to both bacterial and chemical action in the soil
Unsatisfactory	0- 2	Material requires specialized equipment for reduction	30 or less	Cannot effectively be compacted	Material is virtually indestructible; will not degrade

TABLE 4-10
OPERATIONAL RATING DEFINITIONS OF SEA DISPOSAL

Rating	Rating Code	Material Density (lb/ft ³)	Compactibility	Biological Degradability	Regulatory Operational Restrictions
Excellent	9-10	100 and above	Deforms or crushes easily under pressure and retains compacted form after pressure is released	Material will easily degrade and disintegrate by bacterial action	There are no local, regional, and/or national regulatory agencies prohibiting the use of the process
Good	7-8	70 to 100	Deforms easily but springs back when pressure is released	Material will slowly degrade by bacterial action	
Fair	5-6	50 to 70	Deforms with difficulty	Material will decompose by chemical action	
Poor	3-4	30 to 50	Deforms but requires special handling	Material is highly resistant to both bacterial and chemical action	
Unsatisfactory	0-2	30 or less	Cannot effectively be compacted	Material is virtually indestructible; will not degrade	Local, regional, and/or national regulatory agencies prohibit the use of the process

TABLE 4 -11
ENVIRONMENTAL RATING DEFINITIONS OF AIR POLLUTION POTENTIAL

Rating	Rating Code	Harmful Gases	Particulate Emissions	Offensive Odors
Excellent	9-10	No harmful constituents	No particulate emissions	No offensive odors
Good	7-8	Prevailing emissions well below applicable standards	Prevailing particulate emissions well below applicable standards	A miniscule amount of offensive odors
Fair	5-6	Prevailing emissions below applicable standards	Prevailing particulate emissions within applicable standards	An amount of offensive odors such that aesthetic enjoyment is dampened
Poor	3-4	Prevailing emissions just above applicable standards	Prevailing particulate emissions just above applicable standards	An amount of offensive odors such that aesthetic enjoyment is hampered
Unsatisfactory	0-2	Prevailing emissions well in excess of applicable standards	Prevailing particulate emissions well in excess of applicable standards	An amount of offensive odors such that aesthetic enjoyment is totally deprived

TABLE 4 -12
ENVIRONMENTAL RATING DEFINITIONS OF
WATER POLLUTION POTENTIAL

Rating	Rating Code	Toxicity	BOD /COD	Thermal and/or Aesthetics	
				The material or the material's by-product(s) is (are):	The process causes:
Excellent	9-10	Insoluble in water and contain (s) no toxic constituents	Nil		No thermal or aesthetics pollution
Good	7-8	Insoluble in water and contain (s) an amount of toxic constituents well below applicable standards	Minuscule		Acceptable thermal pollution and/or no aesthetic pollution
Fair	5-6	Insoluble in water and contain(s) an amount of toxic constituents within applicable standards	Low		Acceptable thermal and/or aesthetic pollution
Poor	3-4	Soluble in water and contain (s) an amount of toxic constituents just above applicable standards	Average		Moderately nonacceptable thermal and/or aesthetic pollution
Unsatisfactory	0-2	Soluble in water and contain (s) an amount of toxic constituents well in excess of applicable standards.	High		Nonacceptable thermal and/or aesthetic pollution

TABLE 4-13

ENVIRONMENTAL RATING DEFINITIONS
OF LAND POLLUTION POTENTIAL

Rating	Rating Code	Aesthetics
Excellent	9-10	Aesthetic enjoyment is heightened
Good	7- 8	Aesthetic enjoyment remains the same
Fair	5- 6	Aesthetic enjoyment is partially dampened
Poor	3- 4	Aesthetic enjoyment is hampered
Unsatisfactory	0- 2	Aesthetic enjoyment is totally deprived

TABLE 4 -14
ENVIRONMENTAL RATING DEFINITIONS
OF RESOURCE DEPLETION POTENTIAL

Rating	Rating Code	Scarcity	Depletion/Recovery
Excellent	9-10	There is an abundant supply of the material and its substitutes	The material can be reintroduced as a commodity without any change
Good	7-8	There is an adequate supply of the material and its substitutes	The material is transformed into new products in such a manner that the original products may lose their identity
Fair	5-6	There is a diminishing or limited supply of the material but an adequate supply of its substitutes	Basic materials are reclaimed or retained
Poor	3-4	There is a diminishing or limited supply of the material and its substitutes	Basic materials are destroyed with recovery of waste heat
Unsatisfactory	0-2	There is a diminishing or limited supply of the material and it has no substitutes	Basic material is destroyed

reduction; a wirebound wood crate would be "unsatisfactory" because, owing to the mechanical difficulty encountered by the presence of the steel wire, the crate would require specialized equipment for reduction.

4.2 SOLID WASTE METHODOLOGY

In this analysis, six separate material categories consisting of 87 separate material subcategories were rated: 19 papers, eight textiles, six woods, four glass, nine metals, and 41 plastics. These were rated in 46 areas; namely, three for reuse, three for recycle, and eight each for pyrolysis, composting, incineration, sanitary land-fill, and sea disposal. Altogether, 3256 separate rating judgments were made and 6512 numbers calculated in order to determine the relative disposability ranking for the 87 solid military packaging materials. A corrugated fiberboard box will be used to illustrate the numerical procedure.

(1) Step 1: Rating

The fiberboard box was first rated in accordance with the criteria developed in the rating definitions for the operational characteristics and environmental impacts (Tables 4-3 to 4-14). These values are shown in Table 4-15, the Numerical Process Evaluation Matrix, under the headings of operational rating and environmental rating.

(2) Step 2: Relative Rating

Using the aforementioned operational and environmental values and the relative importance of each characteristic and impact, a relative rating was calculated. This rating is the product of the relative importance multiplied by the rating code value.

For example, in direct reuse, the corrugated fiberboard box is rated 7 for separability, 10 for market for the commodity, and 10 for the resource depletion potential. Weighting these by the relative importance factors assigned to each of these process

TABLE 4-15
NUMERICAL PROCESS EVALUATION MATRIX
FOR CORRUGATED CONTAINER
MATERIAL NUMBER 33

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	7		3.5	8.5	9.25
	Market for Commodity	0.5	10		5.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	7		2.8	7.0	8.00
	Technical Operating Restrictions	0.6	7		4.2		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	7		1.4	7.8	7.80
	Separability	0.2	7		1.4		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	7		1.4	6.6	7.20
	Separability	0.2	7		1.4		
	Biological Degradability	0.4	8		3.2		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	9.4	8.60
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	7		1.4	9.1	7.75
	Separability	0.1	7		0.7		
	Combustibility	0.5	10		5.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	7		0.7	6.9	6.95
	Material Density	0.2	1		0.2		
	Compactibility	0.4	9		3.6		
	Biological Degradability	0.3	8		2.4		
	Air Pollution Potential	0.2		10	2.0	7.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	1		0.2	5.0	4.60
	Compactibility	0.3	9		2.7		
	Biological Degradability	0.3	7		2.1		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

subcategories yields the following:

Relative Importance x Operational Rating = Relative Rating

$$.5 \quad \quad \quad x \quad \quad \quad 7 \quad \quad \quad = \quad \quad \quad 3.5$$

$$.5 \quad \quad \quad x \quad \quad \quad 10 \quad \quad \quad = \quad \quad \quad 5.0$$

Relative Importance x Environmental Rating = Relative Rating
Value

$$1.0 \quad \quad \quad x \quad \quad \quad 10 \quad \quad \quad = \quad \quad \quad 10.0$$

where the 3.5 and the 5.0 are operational rating considerations and the 10.0 is the environmental impact.

(3) Step 3: Subtotal

All the relative rating values particular to the operational and environmental considerations are added. The sum of all the respective relative rating is termed the subtotal. In this instance, the operational subtotal is 8.5 and the environmental subtotal is 10.0.

(4) Step 4: Total Disposal Rating

The total disposal rating, for the environmental and operational process rating, is expressed by the mathematical equation:

$$(C_1 \times OST) + (C_2 \times EST) = TDR$$

where: C_1 and C_2 are constants

$$C_1 + C_2 = 1.0$$

OST = Operational Subtotal

EST = Environmental Subtotal

TDR = Total Disposal Rating.

For the purpose of this analysis, C_1 and C_2 were chosen to be equally weighted or equally evaluated at 0.5.

Therefore, the total disposal rating is:

$$(.5 \times 8.5) + (.5 \times 10.0) = 9.25$$

The total disposal rating as noted on the Summary Fact Sheet has been rounded to the nearest tenth. It is instructive to note that C_1 and C_2 , which are again relative importance weights, can be modified in order to evaluate the material being processed under current criteria.

(5) Step 5: Disposal Ranking

The disposal ranking is the assignment of sequential numbers starting with the highest disposal rating and ending with the lowest disposal rating. In this illustration, the following ranking occurs:

<u>Disposal Method</u>	<u>Total Disposal Rating</u>	<u>Disposal Ranking</u>
Reuse	9.25	1
Recycle	8.00	3
Pyrolysis	7.80	4
Composting	7.20	5
Baling	8.60	2
Incineration	7.75	4
Sanitary Landfill	6.95	6
Sea Disposal	4.60	7

This ranking shows the facility officer the order in which disposal alternatives should be utilized. The method of analysis determines the best possible disposal process to be used subject to the constraint of the minimization of environmental pollution and the maximization of process utility.

4.3 CHEMICAL (LIQUID) WASTE CRITERIA DEVELOPMENT

The disposability of chemical packaging materials was evaluated by examining the following characteristics:

- Ability to recover and reuse all or portions of the liquid waste
- Suitability of the waste material or recovery residue for ultimate disposal by:
 - Sanitary landfill
 - Incineration
 - Sea disposal
 - Microbial treatment (sanitary sewage treatment).

Pyrolysis is considered as a method of recovery of portions of the liquid waste which have some value rather than as a method of ultimate disposal. As in pyrolysis of solid materials, the gases and liquids given off by pyrolysis of certain liquid materials contain value as a fuel. However, pyrolysis of the materials such as chlorinated hydrocarbons or petroleum derivatives, which were surveyed in this study, would yield only broken fractions of unknown content and questionable value; whereas the liquid itself, prior to pyrolysis, may have a greater value and be easier to recover through other means such as distillation. Consequently, pyrolysis has not been extensively investigated as a means of liquid waste disposal.

Each of the process alternatives, such as recovery and reuse or incineration, exhibit similar operational and environmental characteristics. For example, the processing equipment may be integral to the equipment in which the liquid is used, such as a small distillation unit used in dry cleaning machines to purify the dry cleaning fluid, or the processing equipment may be suitable only for large-scale applications such as large distillation columns used to fractionate liquid wastes. The operational characteristics that were considered were:

- Recovery
- Processing
- Safety

- Residue
- Reusability
- Degradability
- Combustibility.

The environmental impact of recovery or disposal affects the air, water, and land. An additional overall factor that affects the environment is the depletion of resources. Since many of the chemical packaging and preservative materials used by the U.S. Army are based on petroleum derivatives and limited amounts or shortages of petroleum products do exist, resource depletion is considered an important criterion. As a result, the environmental criteria evaluated in this study include:

- Air pollution potential
- Water pollution potential
- Land pollution potential
- Resource depletion potential.

Environmental criteria for recovery and reuse have been included in the chemical waste section of this report since both the recovery process and the disposal of the residue may affect the environment.

As in the environmental analysis of the solid waste materials, the relative importance factors were equally weighted for each disposal alternative. The rationale for this weighting is the same; namely, one cannot just measure what is environmentally good or bad for this would indicate a qualitative or quantitative bias. Rather, one must take into account, the total environmental impact of each process. The weighted values are normalized as fractions of unity (1.0) to enable comparison of the various processes. The relative importance of values for operational and environmental criteria for each process are shown in Tables 4-16 and 4-17 respectively.

The numerical rating system used in the chemical waste analysis is the same as that used for solid wastes. The rating code is as follows:

<u>Rating</u>	<u>Rating Code</u>
Excellent	9-10
Good	7-8

TABLE 4-16
RELATIVE IMPORTANCE OF
OPERATIONAL DISPOSABILITY CHARACTERISTICS

Characteristics	Process				
	Recovery and Reuse	Sanitary Landfill	Incineration	Sea Disposal	Microbial Treatment
<u>Operational</u>					
Recovery	0.4	--	--	--	--
Processing	--	0.3	0.3	0.3	0.1
Safety	0.1	--	0.1	--	--
Residue	0.1	--	0.1	0.3	0.2
Reusability	0.4	--	--	--	--
Degradability	--	0.7	--	0.4	0.7
Combustibility	--	--	0.5	--	--
Total	1.0	1.0	1.0	1.0	1.0

TABLE 4 -17
RELATIVE IMPORTANCE OF ENVIRONMENTAL IMPACT

Impacts	Process				
	Recovery and Reuse*	Sanitary Landfill	Incineration	Sea Disposal	Microbial Treatment
Air Pollution Potential	0.2	0.2	0.2	0.2	0.2
Water Pollution Potential	0.2	0.2	0.2	0.2	0.2
Land Pollution Potential	0.2	0.2	0.2	0.2	0.2
Resource Depletion Potential	0.4	0.4	0.4	0.4	0.4
Total	1.0	1.0	1.0	1.0	1.0

* Includes residue disposal.

Rating	Rating Code
Fair	5-6
Poor	3-4
Unsatisfactory	0-2

As in the solid waste criteria development, definitions were used as a guide for classifying the liquid waste on a quantified basis. Tables 4-18 to 4-26 contain the operational and environmental rating definitions of each characteristics for each process.

4.4 CHEMICAL (LIQUID) WASTE METHODOLOGY

In this analysis is chemical packaging materials were rated, including chlorinated hydrocarbons, petroleum distillates, detergents, cleaning compounds, greases, and oils. These liquid materials were rated according to criteria in 36 areas, including eight for recovery and reuse, six for sanitary landfill, eight for incineration, seven for sea disposal, and seven for microbial treatment. Altogether 459 separate rating judgments were made and 867 numbers calculated to determine the relative disposability ranking for the 18 chemical packaging materials. A liquid waste containing tetrachloroethylene, which is used as a dry cleaning solvent, is used in the following paragraphs to illustrate the numerical procedure.

(1) Step 1: Rating

The liquid waste containing tetrachloroethylene was first rated in accordance with the criteria developed in the rating definitions for the operational characteristics and environmental impacts. (Tables 4-18 to 4-26). These values are shown in Table 4-27, page 186, the Numerical Process Evaluation Matrix, under the headings of operational and environmental rating.

(2) Step 2: Relative Rating

Using the values developed in Step 1, the relative rating is calculated. The relative rating is the product of the operational rating or environmental impact rating multiplied by the relative importance.

TABLE 4-18
OPERATIONAL RATING DEFINITIONS OF RECOVERY AND REUSE

Rating	Rating Code	Recovery	Safety	Residue	Reusability
Excellent	9-10	Portions of the liquid waste may be recycled; recovery equipment is integral to process	Normal fluid handling procedures	0-10%	Portions or all of the waste may be reused in the same process; integrity of product is not destroyed
Good	7-8	Portions of the liquid waste may be recycled, separate recovery equipment	Some special precautions	11-30%	Portions or all of the waste may be used in another process; integrity of product is not destroyed
Fair	5-6	Value may be recovered from the waste stream in separate equipment	Extensive precautions	31-50%	Portions or all of the waste may be used in another process but use modifies integrity of product; reprocessing is required for reuse
Poor	3-4	Value may be recovered from the waste stream in separate equipment; re-processing is required	Specialized equipment required	51-70%	Portions or all of the waste may be used but integrity of product is destroyed
Unsatisfactory	0-2	Practically not possible to reclaim portions or all of waste	Extremely unsafe (may explode, release highly toxic substances, etc.); recovery not recommended	Greater than 70%	The waste cannot be reused even if processed and should be disposed

TABLE 4-19
OPERATIONAL RATING DEFINITIONS OF SANITARY LANDFILL

Rating	Rating Code	Processing	Degradability
Excellent	9-10	Material requires no processing for sanitary landfill disposal	Material will easily degrade by bacterial action
Good	7-8	Material requires minor or occasional processing (by light equipment) for sanitary landfill disposal	Material will slowly degrade by bacterial action
Fair	5-6	Material requires constant processing for sanitary landfill disposal	Material will decompose by chemical action
Poor	3-4	Material requires heavy or a variety of equipment for sanitary landfill disposal	Material is resistant to bacterial and chemical action
Unsatisfactory	0-2	Material requires specialized equipment for sanitary landfill disposal	Material is virtually indestructible; will not degrade

TABLE 4-20

OPERATIONAL RATING DEFINITIONS OF INCINERATION

Rating	Rating Code	Processing	Combustibility	Safety	Residue
Excellent	9-10	Material requires no processing for incineration	Very high	Normal fluid handling procedures	0-10%
Good	7-8	Material requires minor or occasional processing by light equipment for incineration	High	Some special precautions	11-30%
Fair	5-6	Material requires constant processing for incineration.	Low	Extensive precautions	31-50%
Poor	3-4	Material requires heavy or a variety of equipment for incineration	Self-extinguishing	Specialized equipment required	51-70%
Unsatisfactory	0-2	Material requires specialized equipment for incineration	Inflammable	Extremely unsafe; may explode; incineration not recommended	Greater than 70%

TABLE 4-21
OPERATIONAL RATING DEFINITIONS OF SEA DISPOSAL

Rating	Rating Code	Processing	Degradability	Residue
Excellent	9-10	Material requires no processing for sea disposal	Material will easily degrade in water by bacterial action	0-10%
Good	7-8	Material requires minor or occasional processing by light equipment for sea disposal	Material will slowly degrade in water by bacterial action	11-30%
Fair	5-6	Material requires constant processing for sea disposal	Material will decompose by chemical action	31-50%
Poor	3-4	Material requires heavy or a variety of equipment for sea disposal	Material is resistant to bacterial and chemical action	51-70%
Unsatisfactory	0-2	Material requires specialized equipment for sea disposal	Material is virtually indestructible; will not degrade	Greater than 70%

TABLE 4-22
OPERATIONAL RATING DEFINITIONS OF MICROBIAL TREATMENT

Rating	Rating Code	Processing	Degradability	Residue
Excellent	9-10	Material requires no processing for microbial treatment and disposal	Material will easily degrade by bacterial action	0-10%
Good	7-8	Material requires minor or occasional processing by light equipment for microbial treatment and disposal	Material will slowly degrade by bacterial action	11-30%
Fair	5-6	Material requires constant processing for microbial treatment and disposal	Material will decompose by chemical action	31-50%
Poor	3-4	Material requires heavy or a variety of equipment for microbial treatment and disposal	Material is resistant to bacterial and chemical action	51-70%
Unsatisfactory	0-2	Material requires specialized equipment for bacterial treatment and disposal	Material is virtually indestructible; will not degrade	Greater than 70%

TABLE 4-23
ENVIRONMENTAL RATING DEFINITIONS OF AIR POLLUTION POTENTIAL

Rating	Rating Code	Harmful Gases	Particulate Emissions	Offensive Odors
Excellent	9-10	No harmful constituents.	No particulate emissions	No offensive odors
Good	7-8	Prevailing emissions well below applicable standards	Prevailing particulate emissions well below applicable standards	A minuscule amount of offensive odors
Fair	5-6	Prevailing emissions below applicable standards	Prevailing particulate emissions within applicable standards	An amount of offensive odors such that aesthetic enjoyment is dampened
Poor	3-4	Prevailing emissions above applicable standards	Prevailing particulate emissions just above applicable standards	An amount of offensive odors such that aesthetic enjoyment is hampered
Unsatisfactory	0-2	Prevailing emissions in excess of applicable standards	Prevailing particulate emissions well in excess of applicable standards	An amount of offensive odors such that aesthetic enjoyment is totally deprived

TABLE 4 -24
ENVIRONMENTAL RATING DEFINITIONS
OF WATER POLLUTION POTENTIAL

Rating	Rating Code	Toxicity	BOD /COD	Thermal and/or Aesthetics
		The material or the material's by-product(s) is (are):		
Excellent	9-10	Insoluble in water and contain (s) no toxic constituents	Nil	No thermal or aesthetic pollution
Good	7-8	Insoluble in water and contain (s) an amount of toxic constituents well below applicable standards	Minuscule	Acceptable thermal pollution and/or no aesthetic pollution
Fair	5-6	Insoluble in water and contain(s) an amount of toxic constituents within applicable standards	Low	Acceptable thermal and/or aesthetic pollution
Poor	3-4	Soluble in water and contain (s) an amount of toxic constituents just above applicable standards	Average	Moderately nonacceptable thermal and/or aesthetic pollution
Unsatisfactory	0-2	Soluble in water and contain (s) an amount of toxic constituents well in excess of applicable standards.	High	Nonacceptable thermal and/or aesthetic pollution

TABLE 4 -25
ENVIRONMENTAL RATING DEFINITION
OF LAND POLLUTION POTENTIAL

Rating	Rating Code	Land Pollution
Excellent	9-10	Disposal will improve land use
Good	7-8	Disposal has no effect on land use
Fair	5-6	Disposal has minimal or temporary effect on land use
Poor	3-4	Disposal has major or permanent effect on land use. Land is suitable only for restricted purposes
Unsatisfactory	0-2	Disposal has major, permanent effect on land use. Land may not be used following disposal

TABLE 4-26

**ENVIRONMENTAL RATING DEFINITIONS
OF RESOURCE DEPLETION POTENTIAL**

Rating	Rating Code	Scarcity	Depletion
Excellent	9-10	There is an abundant supply of the material and its substitutes	Integrity of the product is not destroyed; product is reusable in the same process
Good	7-8	There is an adequate supply of the material and its substitutes	Integrity of product is not destroyed but product must be reused in another process
Fair	5-6	There is a diminishing or limited supply of the material but an adequate supply of its substitutes	Product may be converted into new products and used in other processes
Poor	3-4	There is a diminishing or limited supply of the material and its substitutes	The basic material is destroyed but some value (waste heat recovery, for example) is recovered
Unsatisfactory	0-2	There is diminishing or limited supply of the material and it has no substitutes	The basic material is destroyed and no value is recovered

TABLE 4 -27
NUMERICAL PROCESS EVALUATION MATRIX FOR TETRACHLOROETHYLENE
MATERIAL NUMBER 17

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	9		3.6	8.7	8.35
	Safety	0.1	7		0.7		
	Residue	0.1	8		0.8		
	Reusability	0.4	9		3.6		
Sanitary Landfill	Air Pollution Potential	0.2		8	1.6	8.0	3.55
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		8	1.6		
	Resource Depletion Potential	0.4		8	3.2		
Incineration	Processing	0.3	8		2.4	5.4	5.60
	Degradability	0.7	3		2.1		
	Air Pollution Potential	0.2		3	0.6		
	Water Pollution Potential	0.2		0	0.0	2.6	
Sea Disposal	Land Pollution Potential	0.2		5	2.0	5.8	4.35
	Resource Depletion Potential	0.4		5	2.0		
	Processing	0.3	7		2.1		
	Residue	0.3	8		2.4	5.7	
Microbial Treatment	Degradability	0.4	3		1.2	3.0	2.75
	Air Pollution Potential	0.2		0	0.0		
	Water Pollution Potential	0.2		5	0.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		5	2.0	2.8	
	Processing	0.1	7		0.7		
	Residue	0.2	3		0.6		
	Degradability	0.7	2		1.4		
	Air Pollution Potential	0.2		0	0.0	2.8	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		4	0.8		
	Resource Depletion Potential	0.4		5	2.0		

For example, in the operating rating for recovery and reuse, the liquid waste containing tetrachloroethylene is rated 9 for recovery potential (a small still is usually integral to dry cleaning equipment); 7 for safety, since the vapors may be toxic and special procedures are required; 8 for residues, since up to 30 percent waste material, usually dirt, can be found in still bottoms; and 9 for reusability, since the material, less a small amount left in the still bottom, may be reused in the same process. Weighting these values by their relative importance yields the following:

<u>Relative Importance</u>	<u>x</u>	<u>Operational Rating Value</u>	<u>=</u>	<u>Relative Rating</u>
0.4	x	9	=	3.6
0.1	x	7	=	0.7
0.1	x	8	=	0.8
0.4	x	9	=	3.6

(3) Step 3: Subtotal

When the relative ratings for the operational and environmental criteria are summed, it yields the subtotal for each respective relative rating. In this example, the operational relative rating subtotal is 8.7, the corresponding environmental rating subtotal for recovery and reuse of tetrachloroethylene is 8.0.

(4) Step 4: Total Disposal Rating

The total disposal rating for liquid wastes is estimated in the same manner as for solid wastes, which is expressed by the mathematical equation:

$$(C_1 \times \text{OST}) + (C_2 \times \text{EST}) = \text{TDR}$$

where: C_1 and C_2 are constants
 $C_1 + C_2 = 1$
 OST = Operational Subtotal
 EST = Environmental Subtotal
 TDR = Total Disposal Rating.

Therefore, the total disposal rating for the example is:

$$(0.5 \times 8.7) + (0.5 \times 8.0) = 8.35$$

For the purpose of this analysis, C_1 and C_2 were chosen to be equally weighted or equally evaluated at 0.5. As in the formula for solid wastes, the values of C_1 and C_2 may be modified to change the importance of one of the criteria. The total disposal rating, as noted on the Summary Fact Sheet, has been rounded to the nearest tenth.

(5) Step 5: Disposal Ranking

As for solid wastes, the recovery or disposal alternatives for liquid wastes are ranked according to the total disposal ratings. The highest total disposal rating (TDR) is the first choice and the other methods follow. Where two or more steps have the same TDR, the processes are given equal ranking. In the illustration the disposal ranking for tetrachloroethylene is as follows:

<u>Recovery/Reuse or Disposal Method</u>	<u>TDR</u>	<u>Disposal Ranking</u>
Recovery/Reuse (Distillation with incineration and landfill or residue)	8.35	1
Sanitary Landfill	3.60	4
Incineration	5.60	2
Sea Disposal	4.40	3
Microbial Treatment (Sewage)	2.75	5

The ranking provides the facility with a variety of means for treatment of the waste with respect to operational and environmental criteria.

5. ECONOMIC ANALYSIS OF WASTE DISPOSAL PROCESSES

5.1 COST AND REVENUE DATA

The economics of waste disposal processes are a function of many variables, such as the tons of particular wastes generated per day and specific locations of the Army installations in reference to other available reclamation and disposal sites. Therefore, to make the Summary Fact Sheets as complete as possible, and prior to selecting a waste disposal process, it will be necessary for the cognizant officer at each Army installation to assess the economics associated with each alternative waste disposal process.

As an aid in determining the relevant costs and revenues of the alternative processes, a Cost Revenue Data Sheet, Table 5-1, has been developed in conjunction with specific instructions for completing the table. An example of the Completed Cost Revenue Data Sheet, Table 5-2, is provided. In addition, a Summary Cost Data Sheet for solid waste and liquid waste, Tables 5-3 and 5-4, respectively, and specific instructions for each, have been developed and are presented on the following pages.

5.1.1 Cost/Revenue Data Sheet

The objective of the Cost/Revenue Data Sheet is to determine for each process, the daily costs and revenues involved in the disposal of solid or chemical wastes. The cognizant officer at each U.S. Army base will be tasked with the determination of (1) relevant costs and revenue figures and (2) the disposal cost per ton for each process.

TABLE 5-1		COST/REVENUE DATA SHEET	
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100

COST/REVENUE DATA SHEET

General	U. S. Army Base Name: <u>Fort Hometown</u> U. S. Army Base Location: <u>Hometown, Iowa</u>		Material Category: <u>Papers</u> Process: <u>Incineration</u> Date: <u>12/1/73</u>	
Process Data	Capital Costs Land \$ <u>15,000</u> Buildings \$ <u>550,000</u> Equipment \$ <u>125,000</u> Total Capital Costs: \$ <u>690,000</u>		Capacity Design <u>120</u> tons/day Actual <u>280</u> tons/day Throughput <u>100</u> tons/day No. of Operating Days <u>280</u> /yr No. of Operating Shifts <u>2</u> /yr Installation Date <u>1/1/73</u>	
Cost/Revenue Data	Direct Costs Per Shift No. of Employees <u>2</u> Daily Wages <u>20</u> Subtotal <u>80</u> No. of Employees <u>2</u> Daily Wages <u>25</u> Subtotal <u>100</u> No. of Employees <u>1</u> Daily Wages <u>30</u> Subtotal <u>60</u> Daily Operating Labor Cost: \$ <u>240</u> /day Maintenance Labor Per Shift No. of Employees <u>1</u> Daily Wages <u>30</u> Subtotal <u>60</u> Daily Maintenance Labor Cost: \$ <u>60</u> /day Ultimate Disposal Cost of Residue: \$ <u>75</u> /day Daily Direct Costs: \$ <u>375</u> /day		Indirect Costs Fringe Benefits Total O. & M. Labor Wages <u>300</u> Benefit Rate <u>25</u> % Utilities Materials and Supplies Overhead and Administrative Costs Capital Amortization Land <u>15,000</u> x <u>.0534</u> = <u>3.09</u> Plant <u>550,000</u> x <u>.0534</u> = <u>113.34</u> Equipment <u>25,000</u> x <u>.0899</u> = <u>43.24</u> Daily Capital Amortization \$ <u>159.67</u> /day Daily Indirect Costs: \$ <u>454.67</u> /day	
Disposal Costs	Disposal Cost (dollars per day) Daily Direct Costs: \$ <u>375</u> /day * Daily Indirect Costs: \$ <u>454.67</u> /day Daily Costs: Daily Revenue: \$ <u>629.67</u> /day Daily Disposal Costs: \$ <u>162.00</u> /day Actual Throughput (in tons): <u>100</u> /day Daily Disposal Costs per Ton: \$ <u>6.67</u> /ton/day		Revenue Sale of By-Products: \$ <u>148</u> /day Sale of Salvage: \$ <u>14</u> /day External Contractual Services Revenue: \$ <u>0</u> /day Daily Revenue: \$ <u>162</u> /day	

TABLE 5-2 SAMPLE OF COMPLETED COST/REVENUE DATA SHEET

For entering data on the Cost/Revenue Data Sheet, the following instructions apply.

General

- U.S. Army Base Name: Enter the name of your particular Army base.
- U.S. Army Base Location: Enter the location of your particular Army base.
- Material Category: Enter the name of the material category as it is stated on the Fact Sheet.
- Process: Enter the name of the disposal process that is under consideration.
- Date: Enter the date on which this data sheet is completed.

Process Data

- Capital Costs: Enter the one-time investment costs for the land, buildings, and associated equipment including any initial engineering, training, or legal costs. The total capital cost is the sum of these investments.
- Economic Life: Enter the economic or useful life in years for each capital cost investment. The data will be used for determining the amortization factor. (See Note on page 196).
- Interest Rate: Enter, in terms of percent, the present interest rate or cost of money (e.g., 4%, 6%, 10%). The interest rate will be used for determining the amortization factor.

Capacity: Enter the design or rated capacity of the disposal process in tons per day. Enter the actual or estimated throughput of the disposal process in tons per day.

Installation Date: If the disposal process is presently operating, enter the date of installation. If the disposal process is not presently operating, enter the words, "Not Applicable."

Number of Operating Days: Enter the number of days the process is or would operate per year.

Number of Operating Shifts: Enter the number of shifts which is or would be operated per year.

Cost/Revenue Data

Direct Costs

Operating Labor: Enter the number of employees per shift and their associated daily wages for each labor grade (e.g., \$30.00 per day). Multiply the number of employees per shift by their associated daily wages and by the number of shifts. Enter this product under the subtotal heading. Add the values under the subtotal heading and enter this sum in the daily operating labor cost space.

- Maintenance Labor:** Enter the number of employees per shift and their associated daily wages for each labor grade (e. g., \$30.00 per day). Multiply the number of employees per shift by their associated wages and by the number of shifts. Enter this product under the subtotal heading. Add the values under the subtotal heading, and enter this sum in the daily maintenance labor cost space.
- Ultimate Disposal Cost of Residue:** Enter the daily costs involved in collecting, transporting, and disposing of the residue from the process. If the ultimate disposal is sanitary landfill, the cost of disposing may be obtained from the Cost/Revenue Data Sheet for sanitary landfill.
- Daily Direct Costs:** Enter the sum of the total daily operating and maintenance labor costs, and the ultimate disposal cost of the residue.

Indirect Costs

- Fringe Benefits:** Enter the existing fringe benefit rate in decimal form (e. g., .25) in the provided space and the sum of the daily operating and maintenance (O&M) costs in the labor wages space. Multiply the benefit rates by the labor wages. Enter the product in the provided space.
- Utilities:** Enter the cost of utilities per day.

- Materials and Supplies:** Enter the cost of materials and supplies for the operation and maintenance of the process on a per-day basis.
- Overhead and Administrative Cost:** Enter the daily overhead (not included in other indirect costs) and administration costs.
- Capital Amortization:** Enter the capital costs for each investment (see process data section). Enter the annual amortization factor selected from standard interest rate tables on the basis of the economic life and the interest rate. Multiply the capital cost by its respective amortization factor. Since this value is an annual amount, divide this amount by the number of operating days per year. Add the capital amortization for the land, plant, and equipment. Enter the sum of the daily capital amortization in the space provided.
- Daily Indirect Costs:** Enter the sum of the daily costs of fringe benefits, utilities, materials and supplies, overhead and administration, and capital amortization.

Revenue

- Sale of By-Products:** Enter the daily amount of dollars received from the sale of by-products.
- Sale of Salvage:** Enter the daily amount of dollars received from the sale of salvageable materials.

External Contractual
Services/Revenue:

Enter the daily amount of dollars
received for external contractual
services rendered.

Daily Revenue:

Add the daily sales of by-products,
salvage, and the external
contractual services. Enter this
sum in the space provided.

Disposal Costs

Daily Direct Costs:

Enter the daily direct costs from
above.

Daily Indirect Costs:

Enter the daily indirect costs
from above.

Daily Costs:

Enter the sum of the daily direct
and indirect costs.

Daily Revenue:

Enter the daily revenue dollars
from above.

Daily Disposal Cost:

Subtract the daily revenue from
the daily costs. Enter this value
in the space provided.

Actual Throughput:

Enter the actual daily throughput
in tons per day from the process
data section.

Daily Disposal Cost
per Ton:

Divide the daily disposal cost by
the actual throughput. Enter the
result in the space provided.

Note: For purposes of computing depreciation, land is usually excluded. However, in the computation of the amortization of the investment, the economic and useful life of the land is usually taken to be the same as the plant except for sanitary landfill. In such a case, the following calculations apply:

$$E = \frac{FR}{D} \left(1 - \frac{P}{100} \right) \quad \text{Equation (D. 1)}$$

- where E = estimation of necessary landfill capacity in cubic yards per year
- F = a factor incorporating cover material, averaging 17 percent for deep fills and 33 percent for shallow fills, with corresponding F values of 1.17 and 1.33
- R = amount of wastes in pounds per year
- D = average density of wastes in pounds per cubic yard
- P = percent reduction of waste volume in the landfill (0 to 90 percent).

$$Y = \frac{A}{E} \quad \text{Equation (D. 2)}$$

- where Y = number of useful years left in landfill site
- A = present availability of the landfill site in cubic yards
- E = estimation of necessary landfill capacity in cubic yards per year.

Example:

A hypothetical Army base, utilizing a deep fill sanitary landfill, generates 10,000,000 lb of wastes per year. The average density of the wastes is 300 lb/cu ft, and the estimated volume reduction is 17 percent. The present availability of land is 323,700 cu yd.

Solution:

$$F = 1.17$$

$$R = 10,000,000 \text{ lb/year}$$

$$D = 300 \text{ lb/cu ft}$$

$$P = 17 \text{ percent}$$

$$A = 323,700 \text{ cu yd}$$

Equation (D. 1):

$$E = \frac{FR}{D} \left(1 - \frac{P}{100} \right)$$

$$E = \left[\frac{(1.17)(10,000,000)}{300} \right] \times \left[1 - \frac{17}{100} \right]$$

$$E = (39,000) \times (.83)$$

$$E = 32,370 \text{ cu yd/year}$$

Equation (D. 2):

$$Y = \frac{A}{E}$$

$$Y = \frac{323,700}{32,370} = 10 \text{ years}$$

5.1.2 Summary Cost Data Sheet

The objective of the Summary Cost Data Sheets (Tables 5-3, 5-4) is to determine for each disposal process (1) the daily cost per ton and (2) the resultant economic ranking. The cognizant officer at each U.S. Army base will be tasked with the determination of the economic ranking of each disposal process.

For entering data on the Summary Cost Data Sheet, the following instructions apply.

- | | |
|--------------------------------|---|
| U.S. Army Base Name: | Enter the name of your particular Army base. |
| Material Category: | Enter the material category as it is stated on the Fact Sheet |
| Date: | Enter the date on which this data sheet is completed. |
| Daily Disposal Cost per Ton: | Enter the daily disposal cost per ton for each enumerated process from the Cost/Revenue Data Sheet. |
| Daily Collection Cost per Ton: | Enter the daily collection cost per ton from the Cost/Revenue Data Sheet for each process. Unless unusual circumstances arise, the cost will be the same for each enumerated process. |
| Daily Cost per Ton: | Add the respective daily disposal cost per ton and the daily collection cost per ton. Enter the respective sum for each enumerated process in the space provided. |

TABLE 5-3
SUMMARY COST DATA SHEET — SOLID WASTE

U. S. Army Base Name: _____ Material Category: _____ Date: _____

Process	Reuse	Recycle	Compost	Pyrolysis	Compaction	Shredding	Incineration	Sanitary Landfill	Sea Disposal
Daily Disposal Cost per ton									
Daily Collection Cost per ton									
Daily Cost per ton									
Economic Ranking*									

* To be entered on the Solid Waste Summary Fact Sheet.

Note: It is not technically feasible to dispose of some materials by a given process. In this instance, the notation N. A. for "not applicable" should be entered. (For example, metals being disposed of by pyrolysis.)

TABLE 5-4

SUMMARY COST DATA SHEET — CHEMICAL WASTE

U.S. Army Base Name: _____ Material Category: _____ Date: _____

Process	Recovery and Reuse	Sanitary Landfill	Incineration	Sea Disposal	Microbial Treatment
Daily Disposal Cost per ton					
Daily Collection Cost per ton					
Daily Cost per ton					
Economic Ranking*					

*To be entered on the Liquid Waste Summary Fact Sheets.

Economic Ranking:

Review the computed daily cost per ton figures. Rank each process with the lowest daily cost per ton receiving a value of 1, the next lowest a value of 2 and so on until all processes are ranked. Enter the economic rankings on the Solid Waste Summary Fact Sheet or the Liquid Waste Summary Fact Sheet as applicable.

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APPENDIX II

GLOSSARY

AERATION — The process of exposing a bulk material, such as compost, to air, or of charging a liquid with a gas or a mixture of gases.

AEROBIC — Able to live and grow only if free oxygen is present.

ATERBURNER — A device used to burn or oxidize the combustible constituents remaining in the effluent gases.

AIR

Ambient — The surrounding air.

Combustion — Air used for burning a fuel.

Cooling — Ambient air that is added to hot combustion gases to cool them.

Excess Combustion — Air admitted to a combustion system at the point where the fuel is first oxidized.

Primary Combustion — Air admitted to a combustion system at the point where the fuel is first oxidized.

Secondary Combustion — Air introduced above or beyond a fuel bed by a natural, induced, or forced draft. It is generally referred to as overfire air if supplied above the fuel bed through the side walls or the bridge wall of the primary chamber.

Theoretical — The amount of air, calculated from the chemical composition of a waste, that is required to completely burn the waste. Also referred to as stoichiometric air and theoretical combustion air.

AIR POLLUTANT — A substance that, when present in the atmosphere in large enough concentrations, adversely affects the environment.

AIR POLLUTION — An impaired condition of the atmosphere that results because certain substances present in it are too numerous or are of a noxious character.

AIR QUALITY STANDARDS — Levels below which a specific substance or combination substances must be kept in the atmosphere as established by legislation.

ANAEROBIC — Able to live and grow in the absence of free oxygen.

AQUIFER — An underground, water-bearing geologic formation.

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ASH — The incombustible material that remains after a fuel or solid waste has been burned.

ASH-FREE BASIS — The method whereby the weight of ash in a fuel sample is subtracted from its total weight and the adjusted weight is used to calculate the percent of certain constituents present. For example, the percent of fixed carbon (F C) on an ash-free basis is computed as follows:

$$\frac{\text{F C (weight)} \times 100}{\text{Fuel Sample (weight)} - \text{Ash (weight)}} = \text{ash-free F C}$$

ASH PIT — A pit or hopper located below a furnace where residue is accumulated and from which it is removed.

ASH SLUICE — A trench or channel in which water transports residue from an ash pit to a disposal or collection point.

BACKFILL — The material used to refill a ditch or other excavation, or the process of doing so.

BACTERIA — Single-cell, microscopic organisms, that possess rigid cell walls. They may be aerobic, anaerobic, or facultative; they can cause disease; and some are important in the stabilization of solid wastes.

BALER — A machine used to compress and bind solid waste or other materials.

BECCARI PROCESS — A composting process developed by Dr. Giovanni Beccari in 1922. Anaerobic fermentation is followed by a final stage in which decomposition proceeds under partially aerobic conditions; the process was later modified by Verdier and Bordas.

BIODEGRADABLE — The significant breaking down by microorganisms of the physical and/or chemical structure of a compound.

BLOWER — A fan used for force air or gas under pressure.

BOOSTER CYCLE — The period during which additional hydraulic pressure is exerted to push the last charge of solid waste into a transfer trailer or a container attached to a stationary compactor.

BRICK (FIREBRICK) — Refractory brick made from fireclay.

Alumina-Diaspore Fireclay — Brick consisting mainly of diaspore or nodule clay and having an alumina content of 50, 60, or 70 percent (plus or minus 2.5 percent).

High-Duty Fireclay — A fireclay brick that has a pyrometric cone equivalent (PCE) not lower than Cone 31–23, or does not deform more than 1.5 percent at 2,460 F (1,350 C) in the standard local test.

Insulating — A firebrick having a low thermal conductivity and a bulk density of less than 70 pounds per cubic foot; suitable for lining industrial furnaces. Also called insulating block.

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Intermediate-Duty Fireclay — A fireclay brick that has a PCE above Cone 29 or does not deform more than 3 percent at 2,460 F (1,350 C) in the standard local test.

Super-Duty Fireclay — A fireclay brick that has a PCE above Cone 33 on the fired product, shrinks less than 1 percent in the American Society for Testing Materials permanent linear change test, Schedule C (2,910 F), and does not incur more than 4 percent loss in the panel spalling test (preheated to 3,000 F).

BRIQUETTER — A machine that compresses a material, such as metal turnings or coal dust, into small pellets.

BURNING AREA — The horizontal projection of a grate, a hearth, or both.

BURNING RATE — The quantity of solid waste incinerated or the amount of heat released during incineration. The rate is usually expressed in pounds of solid waste per square foot of burning area per hour or in Btu's per square foot of burning area per hour.

CAPACITY (INCINERATOR)

Design — The number of tons of solid waste that a designer anticipates his incinerator will be able to process in a 24-hour period if specified criteria are met.

Firm — The processing capacity of an incinerator when its largest independent unit is not operating.

Rated — The number of tons of solid waste that can be processed at an incinerator per 24-hour period when specified criteria prevail.

CARBON DIOXIDE (CO₂) — A colorless, odorless, non-poisonous gas that forms carbonic acid when dissolved in water; it is produced during the thermal degradation and microbial decomposition of solid wastes.

CARBON MONOXIDE (CO) — A colorless, poisonous gas that has an exceedingly faint metallic odor and taste. It is produced during the thermal degradation and microbial decomposition of solid wastes when the oxygen supply is limited.

CARBON NITROGEN RATIO (C/N) — The ratio of the weight of carbon to the weight of nitrogen present in a compost or in materials that are being composted.

CATALYTIC COMBUSTION SYSTEM — A process in which a substance is introduced into an exhaust gas stream to burn or oxidize vaporized hydrocarbons or odorous contaminants; the substance itself remains intact.

CELL — Compacted solid wastes that are enclosed by natural soil or cover material in a sanitary landfill.

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CELL HEIGHT — The vertical distance between the top and bottom of the compacted solid waste enclosed by natural soil or cover material in a sanitary landfill.

CELL THICKNESS — The perpendicular distance between the cover materials placed over the last working faces of two successive cells in a sanitary landfill.

CHARGE — The quantity of solid waste introduced into a furnace at one time.

CHARGING CHUTE — An overhead passage through which waste materials drop into an incinerator.

CHIPPER — A size-reduction device having sharp blades attached to a rotating shaft (mandrel) that shave or chip off pieces of certain objects, such as tree branches or brush.

COLLECTION — The act of removing solid waste from the central storage point of a primary source.

Alley — The picking up of solid waste from containers placed adjacent to an alley.

Carryout — Crew collection of solid waste from an on-premise storage area using a carrying container, carry-cloth, or a mechanical method.

Contract — The collection of solid waste carried out in accordance with a written agreement in which the rights and duties of the contractual parties are set forth.

Curb — Collection of solid waste from containers placed adjacent to a thoroughfare.

Franchise — Collection made by a private firm that is given exclusive right to collect for a fee paid by customers in a specific territory or from specific types of customers.

Municipal — The collection of solid waste by public employees and equipment under the supervision and direction of a municipal department or official.

Private — The collection of solid waste by individuals or companies from residential, commercial, or industrial premises; the arrangements for the service are made directly between the owner or occupier of the premises and the collector.

Setout/Setback — The removal of full and the return of empty containers between the on-premise storage point and the curb by a collection crew.

COMBUSTION — The chemical combining of oxygen with a substance that results in the production of heat and usually light.

COMBUSTION GASES — The mixture of gases and vapors produced by combustion.

COMPACTION PIT TRANSFER SYSTEM — A transfer system in which solid waste is compacted in a storage pit by a crawler tractor before being pushed into an open-top transfer trailer.

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COMPACTOR

Mobile — A vehicle with an enclosed body containing mechanical devices that convey solid waste into the main compartment of the body and compress it.

Sanitary Landfill — A vehicle equipped with a blade and with rubber tires sheathed in steel or hollow steel cores; both types of wheels are equipped with load concentrations to provide compaction and a crushing effect.

Stationary — A machine that reduces the volume of solid waste by forcing it into a container.

COMPOST — Relatively stable decomposed organic material.

COMPOSTING — A controlled process of degrading organic matter by microorganisms.

Mechanical — A method in which the compost is continuously and mechanically mixed and aerated.

Ventilated Cell — A composting method in which the compost is mixed and aerated by being dropped through a vertical series of ventilated cells.

Windrow — An open-air method in which compostable material is placed in windrows, piles, or ventilated bins or pits and is occasionally turned or mixed. The process may be anaerobic or aerobic.

COVER MATERIAL — Soil that is used to cover compacted solid waste in a sanitary landfill.

CULLET — Clean, color-sorted, crushed glass that is used in glassmaking to speed up the melting of silica sand.

DECOMPOSITION — The reduction of the net energy level and change in chemical composition of organic matter, as by microorganisms.

DENSITY

Sanitary Landfill — The ratio of the combined weight of solid waste and soil cover to the combined volume of the solid waste and the soil cover. $(W_{SW} + W_{soil} / W_{SW} + V_{soil})$

Bulk or Solid Waste — The number obtained by dividing the weight of solid waste by its volume.

DESTRUCTIVE DISTILLATION — The airless heating of organic matter that results in the evolution of volatile substances and produces a solid char consisting of fixed carbon and ash. See **LANTZ PROCESS**

DISPOSAL

Ocean — The deposition of waste into an ocean or estuarine body of water.

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On-Site — The utilization of methods or processes to eliminate or reduce the volume or weight of solid waste on the property of the generator.

Waste — The orderly process of discarding useless or unwanted material.

DUMP — A land site where solid waste is disposed of in a manner that does not protect the environment.

DUMPING — An indiscriminate method of disposing of solid waste. Meaning the unloading or emptying of a container: use *discharging*.

DUST — Fine-grain particulate matter that is capable of being suspended in air.

APPENDIX II(7)

ECOLOGY — The science that deals with the interrelationships of organisms and their living and non-living surroundings.

ECOSYSTEM — The interdependence of organisms and their surroundings.

EFFLUENT — The substances that flow out of a designated source.

EFFLUENT SEEPAGE — Diffuse discharge onto the ground of liquids that have percolated through solid waste or another medium; they contain dissolved or suspended materials.

EMISSIONS — Material that is released into the air either by a discrete source (primary emission) or as the result of a photochemical reaction or chain of reactions (secondary emission).

EMISSION STANDARD — A rule or measurement established to regulate or control the amount of a given pollutant that may be discharged into the outdoor atmosphere from its source.

ENVIRONMENT — The conditions, circumstances, and influences surrounding and affecting the development of an organism or group of organisms.

ENVIRONMENTAL SYSTEM — The interaction of an organism or group of organisms with its natural and manmade surroundings.

EXPLOSIVE LIMIT — The minimum and maximum concentrations (volume per cent) of a vapor in air which if ignited, propagate flame independently of an external source of heat.

FACULTATIVE — Able to live and grow with or without free oxygen.

FAIRFIELD-HARDY DIGESTER (COMPOSTING) — A patented product of Fairfield Engineering Company, Marion, Ohio, which decomposes garbage, sewage sludge, industrial, and other organic wastes by a controlled continuous aerobic-thermophilic process.

FIELD CAPACITY (OF SOLID WASTE) — The amount of water retained in solid waste after it has been saturated and has drained freely. Also known as moisture-holding capacity.

FLASH POINT — The lowest temperature at which a solvent liberates vapor at such a rate that the vapor/air mixture above the surface of the fluid can be ignited by an open flame.

FLUE — Any passage designed to carry combustion gases and entrained particulates.

FLUE DUST — Solid particles (smaller than 100 microns) carried in the products of combustion.

FLUE GAS — Waste gas from a combustion process.

FLUE GAS SCRUBBER OR WASHER — A type of equipment that removes fly ash and other objectionable materials from flue gas by the use of sprays, wet baffles, or other means that require water as the primary separation mechanism.

APPENDIX II(8)

FLUIDIZED BED TECHNIQUE — A combustion process in which heat is transferred from finely divided particles, such as sand, to combustible materials in a combustion chamber. The materials are supported and fluidized by a column of moving air.

FLY ASH — All solids, including ash, charred paper, cinders, dust, soot, or other partially incinerated matter, that are carried in a gas stream.

FUEL BED — The layer of solid fuel or solid waste on a furnace grate or hearth.

FUME — Suspended particles in a gas; one micron or less in diameter.

FUNGI — Simple plants that lack a photosynthetic pigment. The individual cells have a nucleus surrounded by a membrane, and they may be linked together in long filaments called hyphae, which may grow together to form a visible body. Simpler fungi are involved in the stabilization of solid waste and sewage.

FURNANCE — The chambers of an incinerator where drying, ignition, and combustion occur.

GASIFICATION — The process of converting a solid or liquid fuel into a gaseous fuel.

GENERATION — The act or process of producing solid waste.

GRADER — A gas- or diesel-powered, pneumatic-wheeled machine equipped with a centrally located blade that can be angled to cast to either side.

GRATE — A device used to support the solid fuel or solid waste in a furnace during drying, ignition, or combustion. Openings in it permit air to pass through it.

GROUNDWATER — Water present in the saturated zone of an aquifer.

Free — Groundwater in aquifers that are not bounded by or confined in impervious strata.

GROUNDWATER RUNOFF — That part of the groundwater that is discharged into a stream channel as spring or seepage water.

HAMMERMILL — A broad category of high-speed equipment that uses pivoted or fixed hammers or cutters to crush, grind, chip, or shred solid wastes.

HEAT OF COMBUSTION — The heat released, measured in Btu's, when a unit quantity of waste or fuel is burned.

HEAT RELEASE RATE — The amount of heat liberated during complete combustion; it is usually expressed in Btu's per hour per cubic foot of the internal volume of the furnace where the combustion takes place.

APPENDIX II(9)

HEAT VALUE

High — The Btu's liberated when a pound of solid waste is burned completely and the products of combustion are cooled to the initial temperature of the solid waste, as in a calorimeter.

Low — The high heat value minus the latent heat of vaporization of the water that is formed by burning the hydrogen in the fuel.

HYDROGEN SULFIDE (H₂S) — A poisonous gas with the odor of rotten eggs that is produced from the reduction of sulfates in and the putrefaction of a sulfur-containing organic material.

IGNITION TEMPERATURE — Lowest temperature of a fuel at which combustion becomes self-sustaining.

IMPACT MILL — A machine that grinds material by throwing it against heavy metal projections rigidly attached to a rapidly rotating shaft.

INCINERATION — The controlled process by which solid, liquid, or gaseous combustible wastes are burned and changed into gases and the residue produced contains little or no combustible material.

INCINERATOR — An engineered apparatus used to burn waste substances and in which all the factors of combustion—temperature, retention time, turbulence, and combustion air—can be controlled.

Batch Fed — An incinerator that is periodically charged with solid waste; one charge is allowed to burn down or burn out before another is added.

Cell-type — An incinerator whose grate areas are divided into cells, each of which has its own ash drop, underfire air control, and ash grate.

Central — A conveniently located facility that burns solid waste collected from many different sources.

Chute Fed — An incinerator into which solid waste is charged almost continuously to maintain a steady rate of burning.

Continuous Feed — An incinerator into which solid waste is charged almost continuously to maintain a steady rate of burning.

Controlled-Air — An incinerator with two or more combustion areas in which the amounts and distribution of air are controlled. Partial combustion takes place in the first zone, and gases are burned in a subsequent zone or zones.

Direct Fed — An incinerator that accepts solid waste directly into its combustion chamber.

APPENDIX II(10)

Flue Fed — An incinerator that is charged through a shaft that functions as a chute for charging waste and has a flue to carry the products of combustion.

Industrial — An incinerator designed to burn a particular industrial waste.

Multiple Chamber — An incinerator consisting of two or more chambers, arranged as in-line or retort types, interconnected by gas passage ports or ducts.

Municipal — A privately or publicly owned incinerator primarily designed and used to burn residential and commercial solid wastes.

On-Site — An incinerator that burns solid waste on the property utilized by the generator thereof.

Open Pit — A burning device that has an open top and a system of closely spaced nozzles that place a stream of high-velocity air over the burning zone.

Retort-type — A multiple-chamber incinerator in which the gases travel from the end of the ignition chamber, then pass through the mixing and combustion chamber.

INDORE PROCESS — An anaerobic composting method that originated in India; it is similar to the Bangalore process and was modified by Van Maanen. Organic wastes are placed in alternate layers with human or animal excreta in a pit or pile. The piles are turned twice in six months and drainage is used to keep the compost moist.

INOCULUM — Microorganisms placed in a culture medium, soil, compost, etc.

LANTZ PROCESS — A destructive distillation technique, in which the combustible components of solid waste are converted into combustible gases, charcoal, and a variety of distillates.

LEACHATE — Liquid that has percolated through solid waste or other medium and has extracted dissolved or suspended materials from it.

LITTER — Wantonly discarded material.

METALS — In the secondary materials industry, metals include all ferrous, nonferrous, and alloy materials.

METHANE (CH₄) — An odorless, colorless, and asphyxiating gas that can explode under certain circumstances; can be produced by solid waste undergoing anaerobic decomposition.

MILLED REFUSE — Solid waste that has been mechanically reduced in size.

ODOR THRESHOLD — The lowest concentration of an airborne odor that a human can detect.

APPENDIX II(11)

OPEN BURNING — Uncontrolled burning of wastes in the open or in an open dump.

ORGANISM — Any living thing.

Microorganism — Any living thing that is microscopic or submicroscopic in size.

PATHOGEN — An organism capable of producing disease.

PERCENT MOISTURE CONTENT (SOLID WASTE) — The percent of moisture contained in solid waste; it can be calculated on a dry or wet basis.

$$1. \quad \text{Wet} = \frac{100 (\text{water content of sample})}{\text{Dry weight of sample and water content of sample}}$$

$$2. \quad \text{Dry} = \frac{100 (\text{water content of sample})}{\text{Dry weight of sample}}$$

PERMEABILITY — The capacity of a porous medium to conduct or transmit fluids.

PICKING TABLE OR BELT — Table or belt on which solid waste is manually sorted and certain items are removed. It is normally used in composting and salvage operations.

POLLUTION — The condition caused by the presence in the environment of substances of such character and in such quantities that the quality of the environment is impaired or rendered offensive to life.

PROCESSING — Any method, system, or other treatment designed to change the physical form or chemical content of solid waste.

PRODUCTS OF COMBUSTION — The gases, vapors, and solids that result from the combustion of a fuel.

PULVERIZATION — The crushing or grinding of material into small pieces.

PUTREFACTION — The decomposition of organic matter by microorganisms and oxidation, resulting in odors.

PUTRESCIBLE — Organic matter capable of being decomposed by microorganisms.

PYROLYSIS — The chemical decomposition of a material by heat in the absence of oxygen.

RASPER — A grinding machine in the form of a large vertical drum containing heavy hinged arms that rotate horizontally over a rasp-and-sieve floor.

APPENDIX II(12)

RECLAMATION — The restoration to a better or more useful state, such as land reclamation by sanitary landfilling, or the obtaining of useful materials from solid waste.

RECOVERABLE RESOURCES — Materials that still have usefull physical or chemical properties after serving a specific purpose and can, therefore, be reused or recycled for the same or other purposes.

RECOVERY — The process of obtaining materials or energy resources from solid waste. Synonyms: Extraction, Reclamation, Salvage.

Energy — Energy available from the heat generated when solid wastes are incinerated.

RECYCLING — The process by which waste materials are transformed into new products in such a manner that the original products may lose their identity.

REFUSE See **SOLID WASTE**.

REPROCESSING — The action of changing the condition of a secondary material.

RESIDUE — Material that remains after gases, liquids, or solids have been removed.

Incinerator Residue — All of the solid material collected after an incineration process is completed.

REUSE — The reintroduction of a commodity into the economic stream without any change.

RUBBISH — A general term for solid waste—excluding food waste and ashes—taken from residences, commercial establishments, and institutions.

SALVAGE — The utilization of waste materials.

SALVAGING — The controlled removal of waste materials for utilization.

SANITARY LANDFILL — A site where solid waste is disposed using sanitary landfilling techniques.

SANITARY LANDFILLING — An engineered method of disposing of solid waste on land in a manner that protects the environment, by spreading the waste in thin layers, compacting it to the smallest practical volume, and covering it with soil by the end of each working day.

SANITARY LANDFILLING METHOD

Area — A method in which the wastes are spread and compacted on the surface of the ground and cover material is spread and compacted over them.

Quarry — A variation of the area method in which the wastes are spread and compacted in a depression; cover material is generally obtained elsewhere.

APPENDIX II(13)

SHEAR SHREDDER — A size reduction machine that cuts material between two large blades or between a blade and a stationary edge.

SHREDDER — A machine that reduces discarded automobiles and other low-grade sheet and coated metal in a continuous operation to fist-size pieces.

SLAG — A mineral substance formed by chemical action and fusion at furnace operating temperatures.

SMOKE — An aerosol consisting of all the dispersible particulates produced by the incomplete combustion of carbonaceous materials entrained in flue gas.

SOLID WASTE — Useless, unwanted, or discarded material with insufficient liquid content to be free flowing. *See also* **WASTE**.

Agricultural — The solid waste that results from the rearing and slaughtering of animals and the processing of animal products and orchard and field crops.

Commercial — Solid waste generated by stores, offices and other activities that do not actually turn out a product.

Industrial — Solid waste that results from industrial processes and manufacturing.

Institutional — Solid wastes originating from educational, health care, and research facilities.

Municipal — Normally, residential and commercial solid waste generated within a community.

Pesticide — The residue resulting from the manufacturing, handling, or use of chemicals for killing plant and animal pests.

Residential — All solid waste that normally originates in a residential environment. Sometimes called domestic solid waste.

SOLID WASTE MANAGEMENT — The purposeful, systematic control of the generation, storage, collection, transport, separation, processing, recycling, recovery, and disposal of solid wastes.

STACK — A vertical passage through which products of combustion are conducted to the atmosphere.

STORAGE — The interim containment of solid waste, in an approved manner, after generation and prior to ultimate disposal.

SULFUR OXIDES (SO_x) — Compounds of sulfur combined with oxygen that have a significant influence on air pollution.

APPENDIX II (14)

TRANSFER STATION — A site at which solid waste is concentrated and then taken to a processing facility or sanitary landfill.

TRANSPORT — The movement of solid waste subsequent to collection.

WASTE *See also* **SOLID WASTE**.

Bulky Waste — Items whose large size precludes or complicates their handling by normal collection, processing, or disposal methods.

Construction and Demolition Waste — Building materials and rubble resulting from construction, remodeling, repair, and demolition operations.

Hazardous Waste — Those wastes that require special handling to avoid illness or injury to persons or damage to property.

Wood Pulp Waste — Those wastes that require special handling to avoid illness or injury to persons or damage to property.

Special Waste — Those wastes that require extraordinary management.

Yard Waste — Plant clippings, prunings, and other discarded material from yards and gardens. Also known as yard rubbish.

WASTE PROCESSING — An operation such as shredding, compaction, composting, and incineration, in which the physical or chemical properties of wastes are changed.

WET MILLING — The mechanical size reduction of solid wastes that have been wetted to soften the paper and cardboard constituents.

APPENDIX II (15)

Ramp — Another variation of the area method in which a cover material is obtained by excavating in front of the working face. A variation of this method is known as the progressive slope sanitary landfilling method.

Trench — A method in which the waste is spread and compacted in a trench. the excavated spoil is spread and compacted over the waste to form the basic cell structure.

Wet Area — A method used in a swampy area where precautions are taken to avoid water pollution before proceeding with the area landfill technique.

SANITATION — The control of all the factors in man's physical environment that exercise or can exercise a deleterious effect on his physical development, health, and survival.

SATELLITE VEHICLE — A small collection vehicle that transfers its loads into a larger vehicle operating in conjunction with it.

SCREEN

Rotary — An inclined, meshed cylinder that rotates on its axis and screens material placed in its upper end.

Vibrating — An inclined screen that is vibrated mechanically and screens material placed on it.

SECATOR — A separating device that throws mixed material onto a rotating shaft; heavy and resilient materials bounce off one side of the shaft, while light and inelastic materials land on the other and are cast in the opposite direction.

SECONDARY MATERIAL — A material that is utilized in place of a primary or raw material in manufacturing a product.

SEEPAGE — Movement of water or gas through soil without forming definite channels.

SEPARATION — The systematic division of solid waste into designated categories.

SEPARATOR

Ballistic — A device that drops mixed materials having different physical characteristics onto a high-speed rotary impeller; they are hurled off at different velocities and land in separate collecting bins.

Inertial — A material separation device that relies on ballistic or gravity separation of materials having different physical characteristics.

Magnetic — Any device that removes ferrous metals by means of magnets.

APPENDIX III

INDEX TO SUMMARY FACT SHEETS

MATERIAL NUMBER	CATEGORY/ NAME	COMMON NAME (FORM)	FACT SHEET PAGE NUMBER
	CHEMICALS		
1	ACETONE	ACETONE (LIQUID)	46
2	BENZENE	BENZOL (LIQUID)	47
3	CARBON TETRA- CHLORIDE	CARBON TETRACHLORIDE (LIQUID)	48
4	CORROSION PREVENTIVE	CORROSION PREVENTIVE (FLUID)	49
5	CORROSION PREVENTIVE	DESSICANT (POWDER)	50
6	CORROSION PREVENTIVE	OIL TYPE VOLATILE CORROSION INHIBITOR (FLUID)	51
7	CORROSION PREVENTIVE	VCI (SOLID)	52
8	DETERGENT	ALKALI CLEANING COMPOUND (LIQUID)	53
9	DETERGENT	DETERGENT (LIQUID)	54
10	GREASE	GREASE (FLUID)	55
11	LUBRICATING OIL	LUBRICATING OIL (LIQUID)	56
12	METHANOL	WOOD ALCOHOL (LIQUID)	57
13	PETROLATUM	PETROLATUM (LIQUID)	58
14	PETROLEUM CLEANING SOLVENT	STODDARD SOLVENT (LIQUID)	59

MATERIAL NUMBER	CATEGORY/ NAME	COMMON NAME (FORM)	FACT SHEET PAGE NUMBER
15	PETROLEUM DISTILLATE	MINERAL SPIRITS (LIQUID)	60
16	PENTACHLOROPHENOL	PENTACHLOROPHENOL (LIQUID)	61
17	TETRACHLORO- ETHYLENE	PERCHLORO- ETHYLENE (LIQUID)	62
18	TRICHLOR- ETHYLENE	PERCHLORO- ETHYLENE (LIQUID)	63
	GLASSES		
19	GLASS	FIBERGLASS (FIBER)	64
20	GLASS/ PLASTIC	FIBERGLASS (SHEET)	65
21	GLASS	GLASS (SOLID STOCK)	66
22	MINERAL	VERMICULITE (FIBER)	67
	METALS		
23	ALUMINUM	ALUMINUM (FOIL)	68
24	ALUMINUM	ALUMINUM (SHEET)	69
25	LEAD	LEAD (SHEET)	70
26	STEEL, IRON	METAL CYLINDERS (SOLID STOCK)	71
27	STEEL, IRON	METAL DRUMS (SHEET)	72
28	STEEL, IRON	METAL STRAPPING (STRAPS)	73
29	TIN-PLATED STEEL	TIN CANS (SHEET)	74
30	TIN-PLATED STEEL/ ALUMINUM	BIMETALLICS (SHEET)	75
31	VARIOUS METALS	AEROSOLS (SHEET)	76

MATERIAL NUMBER	CATEGORY/ NAME	COMMON NAME (FORM)	USE
	PAPERS		
32	FIBER- BOARD	COATED CORRUGATED CONTAINERBOARD (SHEET)	77
33	FIBER- BOARD	CORRUGATED AND SOLID BOARD OR CONTAINER BOARD (SHEET)	78
34	FIBER- BOARD	WAX IMPREGNATED CORRUGATED BOARD (SHEET)	79
35	PAPER	BAG AND SACK (SHEET)	80
36	PAPER	COATED, IMPREGNATED (SHEET)	81
37	PAPER	CONVERTING, ENVELOPE (SHEET)	82
38	PAPER	NEWSPRINT (SHEET, SHREDS)	83
39	PAPER	PULP (MOLDED)	84
40	PAPER	TISSUE (SHEET)	85
41	PAPER	VCI TREATED PACKAGING MATERIALS (SHEET)	86
42	PAPER	CELLULOSE WADDING (ROLLS, SHEETS)	87
43	PAPER	WAX PAPER (SHREDS)	88
44	PAPER	WRAPPING (SHEET)	89
45	PAPER- BOARD	CHIPBOARD, BOXBOARD (SHEET)	90
46	PAPER- BOARD	SPIRALLY WOUND FIBER CAN (TUBE)	91
47	PAPER/ FOIL LAMI- NATION	POLYOLEFIN - FOIL- PAPER (SHEET)	92

MATERIAL NUMBER	CATEGORY/ NAME	COMMON NAME (FORM)	FACT SHEET PAGE NUMBER
48	PAPER- BOARD/ METAL	METAL-EDGED PAPER- BOARD (SHEET)	93
49	PAPER- BOARD/ METAL	METAL-EDGED PAPER BOARD (SHEET)	94
50	FIBER- BOARD/ WOOD	WOOD-CLEATED FIBER- BOARD (SHEET)	95
	PLASTICS		
51	ACRYLONITRILE BUTADIENE STYRENE	ABS (SOLID STOCK, SHEET)	96
52	CELLULOSICS	CELLOPHANE (FILM)	97
53	CELLULOSICS	CELLULOSE ACETATE (SHEET, FILM)	98
54	CELLULOSICS	CELLULOSE ACETATE BUTYRATE (SOLID STOCK)	99
55	CELLULOSICS	STRIPPABLE PLASTIC COATING - COLD (FILM)	100
56	CELLULOSICS	STRIPPABLE PLASTIC COATING - HOT (FILM)	101
57	EPOXY	EPOXY RESIN (FILM)	102
58	IONOMER	SURLYN (FILM, SHEET)	103
59	IONOMER	SURLYN (FOAM)	104
60	PHENOLICS	BAKELITE (SOLID STOCK)	105
61	PLASTIC/FOIL LAMINATION	POLYOLEFIN/ ALUMINUM/ POLYESTER, MARPLEX (SHEET)	106

MATERIAL NUMBER	CATEGORY/ NAME	COMMON NAME (FORM)	FACT SHEET PAGE NUMBER
62	POLYACRYLICS	LUCITE, PLEXIGLAS (SOLID STOCK, SHEET)	107
63	POLYAMIDS	NYLON (CLOTH)	108
64	POLYAMIDS	NYLON (FIBER)	109
65	POLYCAR- BONATE	POLYCARBONATE (SHEET)	110
66	POLYCAR- BONATE	POLYCARBONATE (SOLID STOCK)	111
67	POLYESTER	DACRON (FIBER)	112
68	POLYESTER	MYLAR (FILM)	113
69	POLYOLE- FIN	POLYETHYLENE (FILM)	114
70	POLYOLE- FIN	POLYETHYLENE (SOLID STOCK)	115
71	POLYOLE- FIN	POLYPROPYLENE (FIBER)	116
72	POLYOLE- FIN	POLYPROPYLENE (FILM)	117
73	POLYOLE- FIN	POLYPROPYLENE (FOAM)	118
74	POLYOLE- FIN	POLYPROPYLENE (SOLID STOCK)	119
75	POLYSTYRENE	POLYSTYRENE (SHEET, FILM)	120
76	POLYSTYRENE	POLYSTYRENE (SOLID)	121
77	POLYSTYRENE	STYROFOAM (FOAM)	122
78	POLYSTYRENE	STYROFOAM (FOAM)	123

MATERIAL NUMBER	CATEGORY/ NAME	COMMON NAME (FORM)	FACT SHEET PAGE NUMBER
79	POLYSTYRENE	STYROFOAM (PELLETS)	124
80	POLYSULPHONE	POLYSULPHONE (SOLID STOCK)	125
81	POLYTETRA- FLUOROETHYL- ENE	TEFLON (SHEET, FILM)	126
82	POLYTETRA- FLUOROETHYL- ENE	TEFLON (SOLID STOCK)	127
83	POLYURE- THANE	POLYURETHANE (FILM)	128
84	POLYURE- THANE	POLYURETHANE (FOAM)	129
85	POLYURE- THANE	POLYURETHANE (SOLID STOCK)	130
86	POLYVINYL ALCOHOL	PVA (SHEET)	131
87	POLYVINYL ALCOHOL	PVAC (SHEET)	132
88	POLYVINYL CHLORIDE	PVC (FILM)	133
89	POLYVINYL CHLORIDE	PVC (SOLID STOCK)	134
90	POLYVINYL- DENE CHLORIDE	SARAN, PVDC (FILM)	135
91	RUBBER	LATEX (FOAM)	136
	TEXTILES		
92	BOUND FIBER	RUBBERIZED HAIR (FIBER)	137
93	CANVAS, RUBBERIZED	TARP (CLOTH)	138

MATERIAL NUMBER	CATEGORY/ NAME	COMMON NAME (FORM)	FACT SHEET PAGE NUMBER
94	COTTON	COTTON (CLOTH)	139
95	COTTON	COTTON (CLOTH)	140
96	COTTON	COTTON (CLOTH)	141
97	FELT	FELT (SHEET)	142
98	JUTE	BURLP (CLOTH)	143
99	SCRIM/FOIL LAMINATION	POLYOLEFIN/ ALUMINUM/SCRIM (SHEET)	144
	WOODS		
100	WOOD	COOPERAGE (BOARD)	145
101	WOOD	EXCELSIOR (SHREDS)	146
102	WOOD	PLYWOOD (SHEET)	147
103	WOOD	VENEER (SHEET)	148
104	WOOD	WOOD (BOARD)	149
105	WOOD/ METAL	NAILED OR WIREBOUND (BOARD)	150

APPENDIX IV

NUMERICAL PROCESS EVALUATION MATRICES

Numerical Process Evaluation Matrices were constructed to standardize the numerical procedures in evaluating the operational and environmental ratings. This appendix details the determined operational and environmental ratings, and the calculations performed to determine the relative ratings, subtotals, and total disposal ratings for each of the 106 military packaging materials. The results of each matrix, namely, the total disposal rating, have been rounded off to the nearest tenth and transferred to the respective Summary Fact Sheets.

NUMERICAL PROCESS EVALUATION MATRIX FOR ACETONE
MATERIAL NUMBER 1

Process	Characteristics	Determined				Total Disposal Rating
		Relative Importance	Operational Rating	Environmental Rating	Relative Rating	
Recovery/Reuse	Recovery	0.4	8		3.2	8.25
	Safety	0.1	6		0.6	
	Residue	0.1	7		0.7	
	Reusability	0.4	10		4.0	
Sanitary Landfill	Air Pollution Potential	0.2		8	1.6	8.0
	Water Pollution Potential	0.2		6	1.2	
	Land Pollution Potential	0.2		6	1.2	
	Resource Depletion Potential	0.4		10	4.0	
Incineration	Processing Degradability				1.5 2.8	7.20
	Air Pollution Potential	0.2				
	Water Pollution Potential	0.2				
	Land Pollution Potential	0.2				
Sea Disposal	Processing	0.3	8		2.4	4.6
	Safety	0.1	8		0.8	
	Residue	0.1	8		0.8	
	Combustibility	0.5	8		4.0	
Microbial Treatment	Air Pollution Potential	0.2		8	1.6	3.65
	Water Pollution Potential	0.2		8	1.6	
	Land Pollution Potential	0.2		8	1.6	
	Resource Depletion Potential	0.4		4	1.6	
	Processing Residue Degradability					2.2
	Air Pollution Potential			2		
	Water Pollution Potential			2		
	Land Pollution Potential			3		
	Processing Residue Degradability	0.1	0		0.0	5.1
	Air Pollution Potential	0.2	8		1.6	
	Water Pollution Potential	0.2	8		1.6	
	Land Pollution Potential	0.2	8		1.6	
	Processing Residue Degradability	0.7	5		3.5	2.2
	Air Pollution Potential	0.2		2	0.4	
	Water Pollution Potential	0.2		2	0.4	
	Land Pollution Potential	0.2		3	0.6	
	Processing Residue Degradability	0.4		2	0.8	3.65
	Air Pollution Potential	0.2		2	0.4	
	Water Pollution Potential	0.2		2	0.4	
	Land Pollution Potential	0.2		3	0.6	
	Processing Residue Degradability	0.4		2	0.8	2.2
	Air Pollution Potential	0.2		2	0.4	
	Water Pollution Potential	0.2		2	0.4	
	Land Pollution Potential	0.2		3	0.6	
	Processing Residue Degradability	0.4		2	0.8	2.2
	Air Pollution Potential	0.2		2	0.4	
	Water Pollution Potential	0.2		2	0.4	
	Land Pollution Potential	0.2		3	0.6	

NUMERICAL PROCESS EVALUATION MATRIX FOR BENZENE
MATERIAL NUMBER 2

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	8		3.2		7.90
	Safety	0.1	9		0.9		
	Residue	0.1	9		0.9	8.2	
	Reusability	0.4	8		3.2		
Sanitary Landfill	Air Pollution Potential	0.2		8	1.6		7.6
	Water Pollution Potential	0.2		5	1.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		10	4.0		
Incineration	Processing	0.3	8		2.4		6.40
	Safety	0.1	9		0.9		
	Residue	0.1	9		0.9	8.2	
	Combustibility	0.5	8		4.0		
Sea Disposal	Air Pollution Potential	0.2		8	1.6		4.6
	Water Pollution Potential	0.2		5	1.0		
	Land Pollution Potential	0.2		6	1.2		
	Resource Depletion Potential	0.4		2	0.8		
Microbial Treatment	Processing	0.1	7		0.7		3.95
	Residue	0.2	8		1.6		
	Degradability	0.7	4		2.8	5.1	
	Air Pollution Potential	0.2		4	0.8		
	Water Pollution Potential	0.2		2	0.4		2.8
	Land Pollution Potential	0.2		4	0.8		
	Resource Depletion Potential	0.4		4	1.6		

**NUMERICAL PROCESS EVALUATION MATRIX FOR CARBON TETRACHLORIDE
MATERIAL NUMBER 3**

Process	Characteristics	Relative Importance	Determined			Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	
Recovery/Reuse	Recovery	0.4	9		3.6	8.55
	Safety	0.1	7		0.7	
	Residue	0.1	8		0.8	
	Reusability	0.4	9		3.6	
Sanitary Landfill	Air Pollution Potential	0.2		8	1.6	8.4
	Water Pollution Potential	0.2		8	1.6	
	Land Pollution Potential	0.2		6	1.2	
	Resource Depletion Potential	0.4		10	4.0	
Incineration	Processing					5.80
	Degradability					
	Air Pollution Potential					
	Water Pollution Potential					
Sea Disposal	Processing	0.3	5		1.5	5.4
	Safety	0.1	5		0.5	
	Residue	0.1	9		0.9	
	Combustibility	0.5	5		2.5	
Microbial Treatment	Air Pollution Potential	0.2		9	1.8	2.75
	Water Pollution Potential	0.2		6	1.2	
	Land Pollution Potential	0.2		6	1.2	
	Resource Depletion Potential	0.4		5	2.0	
	Processing	0.1	7		0.7	2.7
	Residue	0.2	3		0.6	
	Degradability	0.7	2		1.4	
	Air Pollution Potential	0.2		0	0.0	
	Water Pollution Potential	0.2		0	0.0	2.8
	Land Pollution Potential	0.2		4	0.8	
	Resource Depletion Potential	0.4		5	2.0	

**NUMERICAL PROCESS EVALUATION MATRIX FOR CORROSION PREVENTIVE
MATERIAL NUMBER 4**

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	4		1.6	5.5	8.55
	Safety	0.1	8		0.8		
	Residue	0.1	7		0.7		
	Reusability	0.4	6		2.4		
Sanitary Landfill	Air Pollution Potential	0.2		7	1.4	7.6	
	Water Pollution Potential	0.2		7	1.4		
	Land Pollution Potential	0.2		4	0.8		
	Resource Depletion Potential	0.4		10	4.0		
Incineration	Processing					8.1	7.55
	Degradability						
	Air Pollution Potential						
	Water Pollution Potential						
Sea Disposal	Resource Depletion Potential					7.0	
	Processing						
	Residue						
	Degradability						
Microbial Treatment	Air Pollution Potential					3.5	3.35
	Water Pollution Potential						
	Land Pollution Potential						
	Resource Depletion Potential						

NUMERICAL PROCESS EVALUATION MATRIX FOR CORROSION PREVENTIVE—DESSICANT (POWDER)
MATERIAL NUMBER 5

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	8		3.2	8.5	8.45
	Safety	0.1	8		0.8		
	Residue	0.1	9		0.9		
	Reusability	0.4	9		3.6		
Sanitary Landfill	Air Pollution Potential	0.2		8	1.6	8.4	7.25
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		8	1.6		
	Resource Depletion Potential	0.4		9	3.6		
Incineration	Processing Degradability	0.3	9		2.7	7.6	5.65
	Air Pollution Potential	0.2		8	1.6		
	Water Pollution Potential	0.2		6	1.2		
	Land Pollution Potential	0.2		6	1.2		
Sea Disposal	Resource Depletion Potential	0.4		9	3.6	6.0	6.80
	Processing Residue Degradability	0.3	8		2.4		
	Air Pollution Potential	0.2		8	1.6		
	Water Pollution Potential	0.2		6	1.2		
Microbial Treatment	Land Pollution Potential	0.2		6	1.2	7.6	6.80
	Resource Depletion Potential	0.4		9	3.6		
	Processing Residue Degradability	0.1	6		0.6		
	Air Pollution Potential	0.2		8	1.6		

NUMERICAL PROCESS EVALUATION MATRIX FOR CORROSION PREVENTIVE OIL TYPE VCI (FLUID)
MATERIAL NUMBER 6

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	4		1.6	5.5	6.35
	Safety	0.1	8		0.8		
	Residue	0.1	7		0.7		
	Reusability	0.4	6		2.4		
	Air Pollution Potential	0.2		7	1.4	7.2	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		7	2.8		
Sanitary Landfill	Processing						
	Degradability						
	Air Pollution Potential						
	Water Pollution Potential						
Incineration	Land Pollution Potential					7.9	7.15
	Resource Depletion Potential						
	Processing	0.3	8		2.4		
	Safety	0.1	8		0.8		
	Residue	0.1	7		0.7	6.4	
	Combustibility	0.5	8		4.0		
	Air Pollution Potential	0.2		6	1.2		
	Water Pollution Potential	0.2		8	1.6		
Sea Disposal	Land Pollution Potential	0.2		6	1.2		
	Resource Depletion Potential	0.4		6	2.4		
	Processing						
	Residue						
	Degradability						
	Air Pollution Potential			7			
	Water Pollution Potential			7			
	Land Pollution Potential			4			
Microbial Treatment	Resource Depletion Potential			6		4.6	5.40
	Processing	0.1	6		0.6		
	Residue	0.2	6		1.2		
	Degradability	0.7	4		2.8		
	Air Pollution Potential	0.2		7	1.4	6.2	
	Water Pollution Potential	0.2		7	1.4		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		

NUMERICAL PROCESS EVALUATION MATRIX FOR CORROSION PREVENTIVE VCI (SOLID)
MATERIAL NUMBER 7

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	4		1.6	5.5	6.25
	Safety	0.1	8		0.8		
	Residue	0.1	7		0.7		
	Reusability	0.4	6		2.4		
Sanitary Landfill	Air Pollution Potential	0.2		6	1.2	7.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		7	2.8		
Incineration	Processing Degradability					7.9	7.25
	Air Pollution Potential						
	Water Pollution Potential						
	Land Pollution Potential						
Sea Disposal	Processing	0.3	8		2.4	6.6	
	Safety	0.1	8		0.8		
	Residue	0.1	7		0.7		
	Combustibility	0.5	8		4.0		
Microbial Treatment	Air Pollution Potential	0.2		6	1.2	4.3	5.35
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Microbial Treatment	Processing	0.1	7		0.7	6.4	
	Residue	0.2	4		0.8		
	Degradability	0.7	4		2.8		
	Air Pollution Potential	0.2		7	1.4		
Microbial Treatment	Water Pollution Potential	0.2		7	1.4	6.4	
	Land Pollution Potential	0.2		6	1.2		
	Resource Depletion Potential	0.4		6	2.4		

NUMERICAL PROCESS EVALUATION MATRIX FOR DETERGENT, ALKALI CLEANING COMPOUND (LIQUID)
MATERIAL NUMBER 8

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	8		3.2	8.5	8.05
	Safety	0.1	8		0.8		
	Residue	0.1	9		0.9		
	Reusability	0.4	9		3.6		
Sanitary Landfill	Air Pollution Potential	0.2		8	1.6	7.6	6.95
	Water Pollution Potential	0.2		4	0.8		
	Land Pollution Potential	0.2		6	1.2		
	Resource Depletion Potential	0.4		10	4.0		
Incineration	Processing	0.3	8		2.4	5.3	5.15
	Degradability	0.7	7		4.9		
	Air Pollution Potential	0.2		8	1.6		
	Water Pollution Potential	0.2		4	0.8		
Sea Disposal	Land Pollution Potential	0.2		5	1.0	5.0	5.80
	Resource Depletion Potential	0.4		8	3.2		
	Processing	0.3	7		2.1		
	Safety	0.1	9		0.9		
Microbial Treatment	Residue	0.1	8		0.8	6.6	6.80
	Combustibility	0.5	3		1.5		
	Air Pollution Potential	0.2		5	1.0		
	Water Pollution Potential	0.2		7	1.4		
	Land Pollution Potential	0.2		7	1.4	4.4	
	Resource Depletion Potential	0.4		3	1.2		
	Processing	0.3	8		2.4		
	Residue	0.3	8		2.4		
	Degradability	0.4	6		2.4	6.6	
	Air Pollution Potential	0.2		7	1.4		
	Water Pollution Potential	0.2		3	0.6		
	Land Pollution Potential	0.2		6	1.2		
	Resource Depletion Potential	0.4		3	1.2	6.0	
	Processing	0.1	8		0.8		
	Residue	0.2	8		1.6		
	Degradability	0.7	6		4.2		
	Air Pollution Potential	0.2		6	1.2	6.0	
	Water Pollution Potential	0.2		4	0.8		
	Land Pollution Potential	0.2		8	1.6		
	Resource Depletion Potential	0.4		6	2.4		

**NUMERICAL PROCESS EVALUATION MATRIX FOR DETERGENT
MATERIAL NUMBER 9**

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	6		2.4		6.95
	Safety	0.1	10		1.0		
	Residue	0.1	7		0.7	6.5	
	Reusability	0.4	6		2.4		
Sanitary Landfill	Air Pollution Potential	0.2		8	1.6		6.60
	Water Pollution Potential	0.2		4	0.8		
	Land Pollution Potential	0.2		5	1.0	7.4	
	Resource Depletion Potential	0.4		10	4.0		
Incineration	Processing	0.3	8		2.4		5.15
	Degradability	0.7	8		5.6	8.0	
	Air Pollution Potential	0.2		8	1.6		
	Water Pollution Potential	0.2		4	0.8		
Sea Disposal	Land Pollution Potential	0.2		6	1.2		6.20
	Resource Depletion Potential	0.4		4	1.6		
	Processing	0.3	8		2.4		
	Residue	0.3	8		2.4	7.6	
Microbial Treatment	Degradability	0.4	7		2.8		7.20
	Air Pollution Potential	0.2		7	1.4		
	Water Pollution Potential	0.2		3	0.6		
	Land Pollution Potential	0.2		6	1.2	4.8	
	Resource Depletion Potential	0.4		4	1.6		
	Processing	0.1	8		0.8		
	Residue	0.2	8		1.6	8.0	
	Degradability	0.7	8		5.6		
	Air Pollution Potential	0.2		8	1.6		6.4
	Water Pollution Potential	0.2		4	0.8		
	Land Pollution Potential	0.2		8	1.6		
	Resource Depletion Potential	0.4		6	2.4		

NUMERICAL PROCESS EVALUATION MATRIX FOR GREASE
MATERIAL NUMBER 10

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	3		1.2		6.40
	Safety	0.1	7		0.7		
	Residue	0.1	7		0.7	5.0	
	Reusability	0.4	6		2.4		
Sanitary Landfill	Air Pollution Potential	0.2		7	1.4		7.8
	Water Pollution Potential	0.2		5	1.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		10	4.0		
Incineration	Processing						7.00
	Degradability						
	Air Pollution Potential						
	Water Pollution Potential						
Sea Disposal	Processing	0.3	8		2.4		8.6
	Safety	0.1	8		0.8		
	Residue	0.1	9		0.9		
	Combustibility	0.5	9		4.5		
Microbial Treatment	Air Pollution Potential	0.2		8	1.6		5.4
	Water Pollution Potential	0.2		6	1.2		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		4	1.6		
Microbial Treatment	Processing						3.45
	Residue	0.1	5		0.5		
	Degradability	0.2	8		1.6		
	Resource Depletion Potential	0.7	4		2.8	4.9	
Microbial Treatment	Air Pollution Potential	0.2		0	0.0		2.0
	Water Pollution Potential	0.2		2	0.4		
	Land Pollution Potential	0.2		4	0.8		
	Resource Depletion Potential	0.4		2	0.8		

**NUMERICAL PROCESS EVALUATION MATRIX FOR LUBRICATING OIL
MATERIAL NUMBER 11**

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	3		1.2	5.0	6.40
	Safety	0.1	7		0.7		
	Residue	0.1	7		0.7		
	Reusability	0.4	6		2.4		
Sanitary Landfill	Air Pollution Potential	0.2		7	1.4	7.8	
	Water Pollution Potential	0.2		5	1.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		10	4.0		
Incineration	Processing Degradability					8.6	7.00
	Air Pollution Potential						
	Water Pollution Potential						
	Land Pollution Potential						
Sea Disposal	Processing	0.3	8		2.4	5.4	
	Safety	0.1	8		0.8		
	Residue	0.1	9		0.9		
	Combustibility	0.5	9		4.5		
Microbial Treatment	Air Pollution Potential	0.2		8	1.6	4.9	3.45
	Water Pollution Potential	0.2		6	1.2		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		4	1.6		
	Processing Residue Degradability					2.0	
	Air Pollution Potential						
	Water Pollution Potential						
	Land Pollution Potential						
	Processing Residue Degradability	0.1	5		0.5	4.9	3.45
	Air Pollution Potential	0.2	8		1.6		
	Water Pollution Potential	0.2	4		2.8		
	Land Pollution Potential	0.4			0.8		
	Processing Residue Degradability	0.2		0	0.0	2.0	
	Air Pollution Potential	0.2		2	0.4		
	Water Pollution Potential	0.2		4	0.8		
	Land Pollution Potential	0.4		2	0.8		

NUMERICAL PROCESS EVALUATION MATRIX FOR METHANOL
MATERIAL NUMBER 12

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	6		2.4		7.50
	Safety	0.1	7		0.7		
	Residue	0.1	7		0.7	6.6	
	Reusability	0.4	7		2.8		
Sanitary Landfill	Air Pollution Potential	0.2		8	1.6		4.40
	Water Pollution Potential	0.2		8	1.6	8.4	
	Land Pollution Potential	0.2		6	1.2		
	Resource Depletion Potential	0.4		10	4.0		
Incineration	Processing	0.3	8		2.4		7.10
	Degradability	0.7	4		2.8	5.2	
	Air Pollution Potential	0.2		2	0.4		
	Water Pollution Potential	0.2		2	0.4	3.6	
Sea Disposal	Land Pollution Potential	0.2		4	0.8		4.75
	Resource Depletion Potential	0.4		5	2.0	6.2	
	Processing	0.3	8		2.4		
	Residue	0.3	9		2.7	6.7	
Microbial Treatment	Degradability	0.4	4		1.6		3.20
	Air Pollution Potential	0.2		0	0.0		
	Water Pollution Potential	0.2		0	0.0	2.8	
	Land Pollution Potential	0.2		4	0.8		
	Resource Depletion Potential	0.4		5	2.0		
	Processing	0.1	8		0.8		
	Residue	0.2	0		0.0	3.6	
	Degradability	0.7	4		2.8		
	Air Pollution Potential	0.2		0	0.0		
	Water Pollution Potential	0.2		0	0.0	2.8	
	Land Pollution Potential	0.2		4	0.8		
	Resource Depletion Potential	0.4		5	2.0		

NUMERICAL PROCESS EVALUATION MATRIX FOR PETROLATUM
MATERIAL NUMBER 13

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	3		1.2		6.40
	Safety	0.1	7		0.7		
	Residue	0.1	7		0.7	5.0	
	Reusability	0.4	6		2.4		
Sanitary Landfill	Air Pollution Potential	0.2		7	1.4		7.8
	Water Pollution Potential	0.2		5	1.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		10	4.0		
Incineration	Processing						7.00
	Degradability						
	Air Pollution Potential						
	Water Pollution Potential						
Sea Disposal	Processing	0.3	8		2.4		8.6
	Safety	0.1	8		0.8		
	Residue	0.1	9		0.9		
	Combustibility	0.5	9		4.5		
Microbial Treatment	Air Pollution Potential	0.2		8	1.6		3.45
	Water Pollution Potential	0.2		6	1.2		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		4	1.6		
Recovery/Reuse	Processing						7.00
	Degradability						
	Air Pollution Potential						
	Water Pollution Potential						
Sanitary Landfill	Processing	0.3	8		2.4		8.6
	Safety	0.1	8		0.8		
	Residue	0.1	9		0.9		
	Combustibility	0.5	9		4.5		
Sea Disposal	Air Pollution Potential	0.2		8	1.6		3.45
	Water Pollution Potential	0.2		6	1.2		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		4	1.6		
Microbial Treatment	Processing	0.1	5		0.5		2.0
	Residue	0.2	8		1.6		
	Degradability	0.7	4		2.8	4.9	
	Air Pollution Potential	0.2		0	0.0		
Sanitary Landfill	Processing	0.2		2	0.4		2.0
	Water Pollution Potential	0.2		4	0.8		
	Land Pollution Potential	0.2		2	0.4		
	Resource Depletion Potential	0.4		2	0.8		

NUMERICAL PROCESS EVALUATION MATRIX FOR STODDARD SOLVENT
MATERIAL NUMBER 14

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	8		3.2	8.2	7.90
	Safety	0.1	9		0.9		
	Residue	0.1	9		0.9		
	Reusability	0.4	8		3.2		
Sanitary Landfill	Air Pollution Potential	0.2		8	1.6	7.6	
	Water Pollution Potential	0.2		5	1.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		10	4.0		
Incineration	Processing Degradability					8.2	6.40
	Air Pollution Potential						
	Water Pollution Potential						
	Land Pollution Potential						
Sea Disposal	Processing	0.3	8		2.4	4.6	
	Safety	0.1	9		0.9		
	Residue	0.1	9		0.9		
	Combustibility	0.5	8		4.0		
Microbial Treatment	Air Pollution Potential	0.2		8	1.6	5.1	3.95
	Water Pollution Potential	0.2		5	1.0		
	Land Pollution Potential	0.2		6	1.2		
	Resource Depletion Potential	0.4		2	0.8		
	Processing Residue Degradability					2.8	
	Air Pollution Potential						
	Water Pollution Potential						
	Land Pollution Potential						
	Processing	0.1	7		0.7	5.1	
	Residue	0.2	8		1.6		
	Degradability	0.7	4		2.8		
	Air Pollution Potential	0.2		4	0.8		
	Water Pollution Potential	0.2		2	0.4	2.8	
	Land Pollution Potential	0.2		4	0.8		
	Resource Depletion Potential	0.4		2	0.8		

NUMERICAL PROCESS EVALUATION MATRIX FOR PETROLEUM DISTILLATE
MATERIAL NUMBER 15

Process	Characteristics	Relative Importance	Determined			Subtotal	Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating		
Recovery/Reuse	Recovery	0.4	7		2.8	7.8	7.50
	Safety	0.1	8		0.8		
	Residue	0.1	6		0.6		
	Reusability	0.4	9		3.6		
	Air Pollution Potential	0.2		8	1.6	7.2	
	Water Pollution Potential	0.2		6	1.2		
	Land Pollution Potential	0.2		2	0.4		
	Resource Depletion Potential	0.4		10	4.0		
Sanitary Landfill	Processing						
	Degradability						
	Air Pollution Potential						
	Water Pollution Potential						
Incineration	Land Pollution Potential					7.1	5.85
	Resource Depletion Potential						
	Processing	0.3	6		1.8		
	Safety	0.1	4		0.4		
	Residue	0.1	9		0.9	4.6	
	Combustibility	0.5	8		4.0		
	Air Pollution Potential	0.2		7	1.4		
	Water Pollution Potential	0.2		2	0.4		
Sea Disposal	Land Pollution Potential	0.2		4	0.8		
	Resource Depletion Potential	0.4		5	2.0		
	Processing						
	Residue						
	Degradability					4.6	4.10
	Air Pollution Potential						
	Water Pollution Potential						
	Land Pollution Potential						
Microbial Treatment	Resource Depletion Potential					3.6	
	Processing	0.1	4		0.4		
	Residue	0.2	7		1.4		
	Degradability	0.7	4		2.8		
	Air Pollution Potential	0.2		3	0.6		
	Water Pollution Potential	0.2		2	0.4		
	Land Pollution Potential	0.2		3	0.6		
	Resource Depletion Potential	0.4		5	2.0		

NUMERICAL PROCESS EVALUATION MATRIX FOR PENTACHLOROPHENOL
MATERIAL NUMBER 16

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	7		2.8		7.50
	Safety	0.1	8		0.8		
	Residue	0.1	6		0.6		
	Reusability	0.4	9		3.6	7.8	
Sanitary Landfill	Air Pollution Potential	0.2		8	1.6		7.2
	Water Pollution Potential	0.2		6	1.2		
	Land Pollution Potential	0.2		2	0.4		
	Resource Depletion Potential	0.4		10	4.0	7.2	
Incineration	Processing						5.85
	Degradability						
	Air Pollution Potential						
	Water Pollution Potential						
Sea Disposal	Processing	0.3	6		1.8		4.10
	Residue	0.1	4		0.4		
	Degradability	0.1	9		0.9		
	Combustibility	0.5	8		4.0	7.1	
Microbial Treatment	Air Pollution Potential	0.2		7	1.4		4.6
	Water Pollution Potential	0.2		2	0.4		
	Land Pollution Potential	0.2		4	0.8		
	Resource Depletion Potential	0.4		5	2.0	4.6	
Microbial Treatment	Processing	0.1	4		2.1		4.10
	Residue	0.2	7		2.4		
	Degradability	0.7	4		1.2		
	Combustibility	0.2					
Microbial Treatment	Air Pollution Potential	0.2		3	0.6		3.6
	Water Pollution Potential	0.2		2	0.4		
	Land Pollution Potential	0.2		3	0.6		
	Resource Depletion Potential	0.4		5	2.0	3.6	

**NUMERICAL PROCESS EVALUATION MATRIX FOR TETRACHLOROETHYLENE
MATERIAL NUMBER 17**

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	9		3.6	8.7	8.35
	Safety	0.1	7		0.7		
	Residue	0.1	8		0.8		
	Reusability	0.4	9		3.6		
Sanitary Landfill	Air Pollution Potential	0.2		8	1.6	8.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		8	1.6		
	Resource Depletion Potential	0.4		8	3.2		
Incineration	Processing Degradability					5.4	5.60
	Air Pollution Potential						
	Water Pollution Potential						
	Land Pollution Potential						
Sea Disposal	Processing	0.3	5		1.5	5.8	
	Safety	0.1	5		0.5		
	Residue	0.1	9		0.9		
	Combustibility	0.5	5		2.5		
Microbial Treatment	Air Pollution Potential	0.2		7	1.4	2.7	2.75
	Water Pollution Potential	0.2		6	1.2		
	Land Pollution Potential	0.2		6	1.2		
	Resource Depletion Potential	0.4		5	2.0		
	Processing	0.1	7		0.7	2.8	
	Residue	0.2	3		0.6		
	Degradability	0.7	2		1.4		
	Air Pollution Potential	0.2		0	0.0		
	Water Pollution Potential	0.2		0	0.0	2.8	
	Land Pollution Potential	0.2		4	0.8		
	Resource Depletion Potential	0.4		5	2.0		

NUMERICAL PROCESS EVALUATION MATRIX FOR TRICHLOROETHYLENE
MATERIAL NUMBER 18

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Subtotal	
Recovery/Reuse	Recovery	0.4	9		3.6		8.35
	Safety	0.1	7		0.7		
	Residue	0.1	8		0.8		
	Reusability	0.4	9		3.6	8.7	
Sanitary Landfill	Air Pollution Potential	0.2		8	1.6		8.0
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		8	1.6		
	Resource Depletion Potential	0.4		8	3.2	8.0	
Incineration	Processing						5.60
	Degradability						
	Air Pollution Potential						
	Water Pollution Potential						
Sea Disposal	Processing	0.3	5		1.5		5.4
	Safety	0.1	5		0.5		
	Residue	0.1	9		0.9		
	Combustibility	0.5	5		2.5	5.4	
Microbial Treatment	Air Pollution Potential	0.2		7	1.4		2.75
	Water Pollution Potential	0.2		6	1.2		
	Land Pollution Potential	0.2		6	1.2		
	Resource Depletion Potential	0.4		5	2.0	5.8	
Microbial Treatment	Processing						2.75
	Residue						
	Degradability						
	Air Pollution Potential						
Microbial Treatment	Processing	0.1	7		0.7		2.7
	Residue	0.2	3		0.6		
	Degradability	0.7	2		1.4		
	Air Pollution Potential	0.2		0	0.0		
Microbial Treatment	Water Pollution Potential	0.2		0	0.0		2.8
	Land Pollution Potential	0.2		4	0.8		
	Resource Depletion Potential	0.4		5	2.0		
						2.8	

**Numerical Process Evaluation Matrix
For FIBERGLAS CUSHIONING**

Material Number 19

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	3.0	6.50
	Market for Commodity	0.5	3		1.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	2.4	5.70
	Technical Operating Restrictions	0.6	2		1.2		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	10		2.0	3.0	5.60
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	1		0.4		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	8.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		7	2.8		
Composting	Fragmentability	0.2	10		2.0	3.8	6.00
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	3		1.2		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	8.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Baling	Resource Depletion Potential	0.4		7	2.8		
	Compactibility	0.4	1		0.4	5.8	7.00
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	8.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		7	2.8			
Incineration	Fragmentability	0.2	10		2.0	3.3	5.05
	Separability	0.1	3		0.3		
	Combustibility	0.5	0		0.0		
	Potential Damage to Equipment	0.2	5		1.0		
	Air Pollution Potential	0.2		7	1.4	6.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Sanitary Landfill	Fragmentability	0.1	10		1.0	7.6	7.70
	Material Density	0.2	10		2.0		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	2		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
Resource Depletion Potential	0.4		7	2.8			
Sea Disposal	Material Density	0.2	10		2.0	5.0	4.80
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	0		0.0		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.6	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		3	1.2			

**Numerical Process Evaluation Matrix
For FIBERGLASS CONTAINER**

Material Number 20

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	5.0	7.50
	Market for Commodity	0.5	7		3.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	2.4	5.70
	Technical Operating Restrictions	0.6	2		1.2		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	7		1.4	2.4	5.30
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	1		0.4		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	8.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		7	2.8		
Composting	Fragmentability	0.2	7		1.4	3.2	5.70
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	3		1.2		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	8.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		7	2.8		
Baling	Compactibility	0.4	1		0.4	5.8	7.00
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	8.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		7	2.8		
Incineration	Fragmentability	0.2	7		1.4	2.7	4.75
	Separability	0.1	3		0.3		
	Combustibility	0.5	0		0.0		
	Potential Damage to Equipment	0.2	5		1.0		
	Air Pollution Potential	0.2		7	1.4	6.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Sanitary Landfill	Fragmentability	0.1	7		0.7	7.0	7.40
	Material Density	0.2	10		2.0		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	1		0.3		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		7	2.8		
Sea Disposal	Material Density	0.2	10		2.0	5.0	4.80
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	0		0.0		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.6	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		3	1.2		

**Numerical Process Evaluation Matrix
For FIBERGLAS CONTAINER**

Material Number 21

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	8		4.0	8.5	9.25
	Market for Commodity	0.5	9		4.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	8		3.2	6.8	7.90
	Technical Operating Restrictions	0.6	6		3.6		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	3.6	5.90
	Separability	0.2	8		1.6		
	Chemical Degradability	0.4	1		0.4		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	8.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		7	2.8		
Composting	Fragmentability	0.2	8		1.6	4.4	6.30
	Separability	0.2	8		1.6		
	Biological Degradability	0.4	3		1.2		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	8.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		7	2.8		
Baling	Compactibility	0.4	4		1.6	6.4	7.30
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	8.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		7	2.8		
Incineration	Fragmentability	0.2	8		1.6	3.4	5.10
	Separability	0.1	8		0.8		
	Combustibility	0.5	0		0.0		
	Potential Damage to Equipment	0.2	5		1.0		
	Air Pollution Potential	0.2		7	1.4	6.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Sanitary Landfill	Fragmentability	0.1	8		0.8	7.4	7.60
	Material Density	0.2	10		2.0		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	2		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		7	2.8		
Sea Disposal	Material Density	0.2	10		2.0	5.6	4.6
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	2		0.6		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

Numerical Process Evaluation Matrix
For **VERMICULITE**

Material Number 22

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.3	3		0.9	4.4	7.20
	Market for Commodity	0.7	5		3.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	4.8	6.90
	Technical Operating Restrictions	0.6	6		3.6		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	9		1.8	2.4	5.30
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	0		0.0		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	8.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		7	2.8		
Composting	Fragmentability	0.2	10		2.0	2.6	5.40
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	0		0.0		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	8.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		7	2.8		
Baling	Compactibility	0.4	2		0.8	4.4	6.30
	Baleability	0.6	6		3.6		
	Air Pollution Potential	0.2		10	2.0	8.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		7	2.8		
Incineration	Fragmentability	0.2	10		2.0	3.7	5.25
	Separability	0.1	3		0.3		
	Combustibility	0.5	0		0.0		
	Potential Damage to Equipment	0.2	7		1.4		
	Air Pollution Potential	0.2		7	1.4	6.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Sanitary Landfill	Fragmentability	0.1	10		1.0	5.4	6.60
	Material Density	0.2	2		0.4		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		7	2.8		
Sea Disposal	Material Density	0.2	2		0.4	3.4	4.00
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	0		0.0		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.8	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		3	1.2		

**Numerical Process Evaluation Matrix
For ALUMINUM TRAY**

Material Number 23

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	3.5	6.75
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	6.8	7.90
	Technical Operating Restrictions	0.6	9		5.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	8		1.6	3.0	5.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	2		0.8		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Composting	Fragmentability	0.2	8		1.6	2.6	5.00
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	1		0.4		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Baling	Compactibility	0.4	1		0.4	6.4	6.90
	Baleability	0.6	10		6.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Incineration	Fragmentability	0.2	8		1.6	4.0	5.00
	Separability	0.1	3		0.3		
	Combustibility	0.5	1		0.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		7	1.4	6.0	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		3	1.2		
Sanitary Landfill	Fragmentability	0.1	8		0.8	7.4	7.10
	Material Density	0.2	10		2.0		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	2		0.6		
	Air Pollution Potential	0.2		10	2.0	6.8	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		5	2.0		
Sea Disposal	Material Density	0.2	10		2.0	5.0	4.40
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	0		0.0		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	3.8	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		1	0.4		

**Numerical Process Evaluation Matrix
For ALUMINUM CAN**

Material Number 24

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	4		2.0	4.0	7.00
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	4		1.6	7.0	8.00
	Technical Operating Restrictions	0.6	9		5.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	8		1.6	3.2	5.30
	Separability	0.2	4		0.8		
	Chemical Degradability	0.4	2		0.8		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Composting	Fragmentability	0.2	8		1.6	2.8	5.10
	Separability	0.2	4		0.8		
	Biological Degradability	0.4	1		0.4		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Baling	Compactibility	0.4	10		4.0	9.4	8.40
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Incineration	Fragmentability	0.2	8		1.6	3.6	4.80
	Separability	0.1	4		0.4		
	Combustibility	0.5	0		0.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		7	1.4	6.0	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		3	1.2		
Sanitary Landfill	Fragmentability	0.1	8		0.8	7.4	7.10
	Material Density	0.2	10		2.0		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	2		0.6		
	Air Pollution Potential	0.2		10	2.0	6.8	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		5	2.0		
Sea Disposal	Material Density	0.2	10		2.0	5.0	4.40
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	0		0.0		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	3.8	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		1	0.4		

**Numerical Process Evaluation Matrix
For LEAD TUBES**

Material Number 25

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	5		2.5	6.0	8.00
	Market for Commodity	0.5	7		3.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	5		2.0	7.4	8.2
	Technical Operating Restrictions	0.6	9		5.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	3		0.6	2.0	4.70
	Separability	0.2	5		1.0		
	Chemical Degradability	0.4	1		0.4		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Composting	Fragmentability	0.2	3		0.6	2.0	4.70
	Separability	0.2	5		1.0		
	Biological Degradability	0.4	1		0.4		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Baling	Compactibility	0.4	5		2.0	3.2	5.30
	Baleability	0.6	2		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Incineration	Fragmentability	0.2	3		0.6	2.5	4.25
	Separability	0.1	5		0.5		
	Combustibility	0.5	0		0.0		
	Potential Damage to Equipment	0.3	7		1.4		
	Air Pollution Potential	0.2		7	1.4	6.0	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		3	1.2		
Sanitary Landfill	Fragmentability	0.1	3		0.3	3.4	5.10
	Material Density	0.2	10		2.0		
	Compactibility	0.4	2		0.8		
	Biological Degradability	0.3	1		0.3		
	Air Pollution Potential	0.2		10	2.0	6.8	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		5	2.0		
Sea Disposal	Material Density	0.2	10		2.0	2.6	3.20
	Compactibility	0.3	2		0.6		
	Biological Degradability	0.3	0		0.0		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	3.8	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		1	0.4		

**Numerical Process Evaluation Matrix
For STEEL CYLINDER**

Material Number 26

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	9		4.5	8.0	9.00
	Market for Commodity	0.5	7		3.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	9		3.6	4.8	6.90
	Technical Operating Restrictions	0.6	2		1.2		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	1		0.2	2.8	5.10
	Separability	0.2	9		1.8		
	Chemical Degradability	0.4	2		0.8		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Composting	Fragmentability	0.2	1		0.2	2.4	4.90
	Separability	0.2	9		1.8		
	Biological Degradability	0.4	1		0.4		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Baling	Compactibility	0.4	10		4.0	5.8	6.60
	Baleability	0.6	3		1.8		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Incineration	Fragmentability	0.2	1		0.2	1.5	3.80
	Separability	0.1	9		0.9		
	Combustibility	0.5	0		0.0		
	Potential Damage to Equipment	0.2	2		0.4		
	Air Pollution Potential	0.2		7	1.4	6.0	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		3	1.2		
Sanitary Landfill	Fragmentability	0.1	1		0.1	3.6	5.20
	Material Density	0.2	10		2.0		
	Compactibility	0.4	3		1.2		
	Biological Degradability	0.3	1		0.3		
	Air Pollution Potential	0.2		10	2.0	6.8	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		5	2.0		
Sea Disposal	Material Density	0.2	10		2.0	3.7	3.80
	Compactibility	0.3	3		0.9		
	Biological Degradability	0.3	1		0.3		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	3.8	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		1	0.4		

**Numerical Process Evaluation Matrix
For Steel Drum**

Material Number 27

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	10		10.0	10.0	10.00
	Market for Commodity	0.5	10		10.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	10		4.0	7.6	8.30
	Technical Operating Restrictions	0.6	0		2.6		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	4		0.8	3.6	5.50
	Separability	0.2	10		2.0		
	Chemical Degradability	0.4	2		0.8		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Composting	Fragmentability	0.2	4		0.8	3.2	5.30
	Separability	0.2	10		2.0		
	Biological Degradability	0.4	1		0.4		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Baling	Compactibility	0.4	10		4.0	7.6	7.50
	Baleability	0.6	6		3.6		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Incineration	Fragmentability	0.2	4		0.8	3.2	4.60
	Separability	0.1	10		1.0		
	Combustibility	0.5	0		0.0		
	Potential Damage to Equipment	0.2	7		1.4		
	Air Pollution Potential	0.2		7	1.4	6.0	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		3	1.2		
Sanitary Landfill	Fragmentability	0.1	4		0.4	5.3	6.05
	Material Density	0.2	10		2.0		
	Compactibility	0.4	5		2.0		
	Biological Degradability	0.3	3		0.9		
	Air Pollution Potential	0.2		10	2.0	6.8	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		5	2.0		
Sea Disposal	Material Density	0.2	10		2.0	4.4	4.10
	Compactibility	0.3	5		1.5		
	Biological Degradability	0.3	3		0.9		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	3.8	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		1	0.4		

**Numerical Process Evaluation Matrix
For Metal Strap**

Material Number 28

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability						
	Market for Commodity						
	Resource Depletion Potential						
Recycle	Separability	0.4	9		3.6	9.0	9.00
	Technical Operating Restrictions	0.6	9		5.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	1		0.2	2.8	5.10
	Separability	0.2	9		1.8		
	Chemical Degradability	0.4	2		0.8		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Composting	Fragmentability	0.2	1		0.2	2.4	4.90
	Separability	0.2	9		1.8		
	Biological Degradability	0.4	1		0.4		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Baling	Compactibility	0.4	1		0.4	2.2	4.80
	Baleability	0.6	3		1.8		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Incineration	Fragmentability	0.2	1		0.2	2.5	4.25
	Separability	0.1	9		0.9		
	Combustibility	0.5	0		0.0		
	Potential Damage to Equipment	0.2	7		1.4		
	Air Pollution Potential	0.2		7	1.4	6.0	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		3	1.2		
Sanitary Landfill	Fragmentability	0.1	1		0.1	4.6	5.70
	Material Density	0.2	10		2.0		
	Compactibility	0.4	4		1.6		
	Biological Degradability	0.3	3		0.9		
	Air Pollution Potential	0.2		10	2.0	6.8	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		5	2.0		
Sea Disposal	Material Density	0.2	10		2.0	4.1	3.95
	Compactibility	0.3	4		1.2		
	Biological Degradability	0.3	3		0.9		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	3.8	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		1	0.4		

**Numerical Process Evaluation Matrix
For Tin Can (Steel)**

Material Number 29

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability						
	Market for Commodity						
	Resource Depletion Potential						
Recycle	Separability	0.4	10		4.0	8.8	8.90
	Technical Operating Restrictions	0.6	8		4.8		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	6		1.2	4.0	5.70
	Separability	0.2	10		2.0		
	Chemical Degradability	0.4	2		0.8		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Composting	Fragmentability	0.2	6		1.2	3.8	5.60
	Separability	0.2	10		2.0		
	Biological Degradability	0.4	1		0.4		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Baling	Compactibility	0.4	10		4.0	9.4	8.40
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Incineration	Fragmentability	0.2	6		1.2	3.8	4.90
	Separability	0.1	10		1.0		
	Combustibility	0.5	0		0.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		7	1.4	6.0	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		3	1.2		
Sanitary Landfill	Fragmentability	0.1	6		0.6	7.2	7.00
	Material Density	0.2	10		2.0		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	2		0.6		
	Air Pollution Potential	0.2		10	2.0	6.8	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		5	2.0		
Sea Disposal	Material Density	0.2	10		2.0	5.6	4.70
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	2		0.6		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	3.8	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		1	0.4		

Numerical Process Evaluation Matrix
For **TIN-PLATED STEEL/ALUMINUM CAN**

Material Number 30

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	10		5.0	8.5	9.25
	Market for Commodity	0.5	7		3.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	10		4.0	8.8	8.90
	Technical Operating Restrictions	0.6	8		4.8		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	6		1.2	4.0	5.70
	Separability	0.2	10		2.0		
	Chemical Degradability	0.4	2		0.8		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Composting	Fragmentability	0.2	6		1.2	3.8	5.50
	Separability	0.2	10		2.0		
	Biological Degradability	0.4	1		0.4		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Baling	Compactibility	0.4	10		4.0	8.4	8.40
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		5	2.0		
Incineration	Fragmentability	0.2	6		1.2	3.8	4.90
	Separability	0.1	10		1.0		
	Combustibility	0.5	0		0.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		7	1.4	6.0	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		3	1.2		
Sanitary Landfill	Fragmentability	0.1	6		0.6	7.2	7.00
	Material Density	0.2	10		2.0		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	2		0.6		
	Air Pollution Potential	0.2		10	2.0	6.8	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		5	2.0		
Sea Disposal	Material Density	0.2	10		2.0	5.6	4.70
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	2		0.6		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2	10		2.0	3.8	
	Water Pollution Potential	0.2	0		0.0		
	Land Pollution Potential	0.2	7		1.4		
	Resource Depletion Potential	0.4	1		0.4		

Numerical Process Evaluation Matrix
For **AEROSOLS/PRESSURIZED CAN**

Material Number 31

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability						
	Market for Commodity						
	Resource Depletion Potential						
Recycle	Separability	0.4	9		3.6	4.8	6.90
	Technical Operating Restrictions	0.6	2		1.2		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	1		0.2		5.10
	Separability	0.2	9		1.8	2.8	
	Chemical Degradability	0.4	2		0.8		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0		
	Water Pollution Potential	0.2		10	2.0	7.4	
	Land Pollution Potential	0.2		7	1.4		
Composting	Resource Depletion Potential	0.4		5	2.0		4.90
	Fragmentability	0.2	1		0.2		
	Separability	0.2	9		1.8	2.4	
	Biological Degradability	0.4	1		0.4		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0		
	Water Pollution Potential	0.2		10	2.0	7.4	
Baling	Land Pollution Potential	0.2		7	1.4		6.60
	Resource Depletion Potential	0.4		5	2.0		
	Compactibility	0.4	10		4.0	5.8	
	Baleability	0.6	3		1.8		
	Air Pollution Potential	0.2		10	2.0		
	Water Pollution Potential	0.2		10	2.0	7.4	
	Land Pollution Potential	0.2		7	1.4		
Incineration	Resource Depletion Potential	0.4		5	2.0		3.75
	Fragmentability	0.2	1		0.2		
	Separability	0.1	9		0.9	1.5	
	Combustibility	0.5	0		0.0		
	Potential Damage to Equipment	0.2	2		0.4		
	Air Pollution Potential	0.2		7	1.4		
	Water Pollution Potential	0.2		10	2.0	6.0	
Sanitary Landfill	Land Pollution Potential	0.2		7	1.4		5.20
	Resource Depletion Potential	0.4		3	1.2		
	Fragmentability	0.1	1		0.1		
	Material Density	0.2	10		2.0	3.6	
	Compactibility	0.4	3		1.2		
	Biological Degradability	0.3	1		0.3		
	Air Pollution Potential	0.2		10	2.0		
Sea Disposal	Water Pollution Potential	0.2		9	1.8	6.8	3.50
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		5	2.0		
	Material Density	0.2	10		2.0		
	Compactibility	0.3	3		0.9	3.2	
	Biological Degradability	0.3	1		0.3		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0		
	Water Pollution Potential	0.2		0	0.0	3.8	
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		1	0.4		

**Numerical Process Evaluation Matrix
For Coated Corrugated Container**

Material Number 32

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	7		3.5	8.5	9.25
	Market for Commodity	0.5	10		5.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	7		2.8	5.2	7.10
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	7		1.4	7.8	7.80
	Separability	0.2	7		1.4		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	7		1.4	6.2	7.00
	Separability	0.2	7		1.4		
	Biological Degradability	0.4	7		2.8		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	9.4	8.60
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	7		1.4	9.1	7.75
	Separability	0.1	7		0.7		
	Combustibility	0.5	10		5.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	7		0.7	7.2	7.10
	Material Density	0.2	4		0.8		
	Compactibility	0.4	9		3.6		
	Biological Degradability	0.3	7		2.1		
	Air Pollution Potential	0.2		10	2.0	7.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	4		0.8	5.6	4.90
	Compactibility	0.3	9		2.7		
	Biological Degradability	0.3	7		2.1		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Corrugated Container**

Material Number 33

Process	Characteristics	Relative Importance	Determined					
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	Total Disposal Rating	
Direct Reuse	Separability	0.5	7		3.5	8.5	9.25	
	Market for Commodity	0.5	10		5.0			
	Resource Depletion Potential	1.0		10	10.0	10.0		
Recycle	Separability	0.4	7		2.8	7.0	8.00	
	Technical Operating Restrictions	0.6	7		4.2			
	Resource Depletion Potential	1.0		9	9.0			
Pyrolysis	Fragmentability	0.2	7		1.4	7.8	7.80	
	Separability	0.2	7		1.4			
	Chemical Degradability	0.4	10		4.0			
	Technical Operating Restrictions	0.2	5		1.0			
	Air Pollution Potential	0.2		10	2.0	7.8		
	Water Pollution Potential	0.2		10	2.0			
	Land Pollution Potential	0.2		7	1.4			
	Resource Depletion Potential	0.4		6	2.4			
Composting	Fragmentability	0.2	7		1.4	6.6	7.20	
	Separability	0.2	7		1.4			
	Biological Degradability	0.4	8		3.2			
	Technical Operating Restrictions	0.2	3		0.6			
	Air Pollution Potential	0.2		10	2.0	7.8		
	Water Pollution Potential	0.2		10	2.0			
	Land Pollution Potential	0.2		7	1.4			
Resource Depletion Potential	0.4		6	2.4				
Baling	Compactibility	0.4	10		4.0	9.4	8.60	
	Baleability	0.6	9		5.4			
	Air Pollution Potential	0.2		10	2.0	7.8		
	Water Pollution Potential	0.2		10	2.0			
	Land Pollution Potential	0.2		7	1.4			
Resource Depletion Potential	0.4		6	2.4				
Incineration	Fragmentability	0.2	7		1.4	9.1	7.75	
	Separability	0.1	7		0.7			
	Combustibility	0.5	10		5.0			
	Potential Damage to Equipment	0.2	10		2.0			
	Air Pollution Potential	0.2		7	1.4	6.4		
	Water Pollution Potential	0.2		10	2.0			
	Land Pollution Potential	0.2		7	1.4			
	Resource Depletion Potential	0.4		4	1.6			
Sanitary Landfill	Fragmentability	0.1	7		0.7	6.9	6.95	
	Material Density	0.2	1		0.2			
	Compactibility	0.4	9		3.6			
	Biological Degradability	0.3	8		2.4			
	Air Pollution Potential	0.2		10	2.0	7.0		
	Water Pollution Potential	0.2		8	1.6			
	Land Pollution Potential	0.2		5	1.0			
Resource Depletion Potential	0.4		6	2.4				
Sea Disposal	Material Density	0.2	1		0.2	5.0	4.60	
	Compactibility	0.3	9		2.7			
	Biological Degradability	0.3	7		2.1			
	Regulatory Operational Restrictions	0.2	0		0.0			
	Air Pollution Potential	0.2		10	2.0	4.2		
	Water Pollution Potential	0.2		0	0.0			
	Land Pollution Potential	0.2		7	1.4			
	Resource Depletion Potential	0.4		2	0.8			

**Numerical Process Evaluation Matrix
For Wax Impregnated Paper**

Material Number 34

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	7		3.5	8.5	9.25
	Market for Commodity	0.5	10		5.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	7		2.8	5.2	7.10
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	7		1.4	7.8	7.80
	Separability	0.2	7		1.4		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	7		1.4	6.2	7.00
	Separability	0.2	7		1.4		
	Biological Degradability	0.4	7		2.8		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	9.4	8.60
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	7		1.4	9.1	7.75
	Separability	0.1	7		0.7		
	Combustibility	0.5	10		5.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	7		0.7	7.2	7.10
	Material Density	0.2	4		0.8		
	Compactibility	0.4	9		3.6		
	Biological Degradability	0.3	7		2.1		
	Air Pollution Potential	0.2		10	2.0	7.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	4		0.8	5.0	4.60
	Compactibility	0.3	9		1.5		
	Biological Degradability	0.3	5		2.1		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

Numerical Process Evaluation Matrix
For Paper Bag
Material Number 35

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	4		2.0	5.5	7.75
	Market for Commodity	0.5	7		3.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	4		1.6	5.2	7.10
	Technical Operating Restrictions	0.6	6		3.6		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	7.4	7.60
	Separability	0.2	4		0.8		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	6.2	7.00
	Separability	0.2	4		0.8		
	Biological Degradability	0.4	8		3.2		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	5		2.0	7.4	7.60
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	9.0	7.70
	Separability	0.1	4		0.4		
	Combustibility	0.5	10		5.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	7.6	7.30
	Material Density	0.2	4		0.8		
	Compactibility	0.4	9		3.6		
	Biological Degradability	0.3	8		2.4		
	Air Pollution Potential	0.2		10	2.0	7.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	4		0.8	5.8	5.05
	Compactibility	0.3	9		2.7		
	Biological Degradability	0.3	8		2.4		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Impregnated Paper**

Material Number 36

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	7		3.5	8.5	9.25
	Market for Commodity	0.5	10		5.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	7		2.8	5.2	7.10
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	7		1.4	7.8	7.80
	Separability	0.2	7		1.4		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	7		1.4	6.2	7.00
	Separability	0.2	7		1.4		
	Biological Degradability	0.4	7		2.8		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	4		1.6	7.0	7.40
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	7		1.4	9.1	7.75
	Separability	0.1	7		0.7		
	Combustibility	0.5	10		5.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	7		0.7	7.2	7.10
	Material Density	0.2	4		0.8		
	Compactibility	0.4	9		3.6		
	Biological Degradability	0.3	7		2.1		
	Air Pollution Potential	0.2		10	2.0	7.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	4		0.8	5.6	4.90
	Compactibility	0.3	9		2.7		
	Biological Degradability	0.3	7		2.1		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Converting Paper**

Material Number 37

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	1.5	5.75
	Market for Commodity	0.5	0		0.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	9		1.8	6.6	7.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	8		3.2		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	5.2	6.50
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	6		2.4		
	Technical Operating Restrictions	0.2	2		0.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	6.4	7.10
	Baleability	0.6	10		6.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	9.1	7.75
	Separability	0.1	3		0.3		
	Combustibility	0.5	10		5.0		
	Potential Damage to Equipment	0.3	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	7.7	7.35
	Material Density	0.2	5		1.0		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	6		1.8		
	Air Pollution Potential	0.2		10	2.0	7.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	5		1.0	5.8	5.00
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	6		1.8		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Newsprint Wrapping**

Material Number 38

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	2		1.0	3.5	6.75
	Market for Commodity	0.5	5		2.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	2		0.8	3.8	6.40
	Technical Operating Restrictions	0.6	5		3.0		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	10		2.0	7.4	7.60
	Separability	0.2	2		0.4		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		8	2.4		
Composting	Fragmentability	0.2	10		2.0	6.2	7.00
	Separability	0.2	2		0.4		
	Biological Degradability	0.4	8		3.2		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	2		0.8	6.8	7.30
	Baleability	0.6	10		6.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	10		2.0	9.2	7.80
	Separability	0.1	2		0.2		
	Combustibility	0.5	10		5.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	10		1.0	8.2	7.60
	Material Density	0.2	4		0.8		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	8		2.4		
	Air Pollution Potential	0.2		10	2.0	7.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	4		0.8	6.2	5.20
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	8		2.4		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Pulp Tray**

Material Number: 39

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	2		1.0	4.5	7.25
	Market for Commodity	0.5	7		3.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	2		0.8	5.0	7.00
	Technical Operating Restrictions	0.6	7		4.2		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	8		1.6	7.0	7.40
	Separability	0.2	2		0.4		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	5.8	6.80
	Separability	0.2	2		0.4		
	Biological Degradability	0.4	8		3.2		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	5.8	6.80
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	7.8	7.10
	Separability	0.1	2		0.2		
	Combustibility	0.5	8		4.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	8.0	7.50
	Material Density	0.2	4		0.8		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	8		2.4		
	Air Pollution Potential	0.2		10	2.0	7.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	4		0.8	6.2	5.20
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	8		2.4		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Tissue Paper**

Material Number 40

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	4		2.0	4.5	7.25
	Market for Commodity	0.5	5		2.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	4		1.6	5.8	7.40
	Technical Operating Restrictions	0.6	7		4.2		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	7.4	7.60
	Separability	0.2	4		0.8		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	5.8	6.80
	Separability	0.2	4		0.8		
	Biological Degradability	0.4	7		2.8		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	2		0.8	6.8	7.30
	Baleability	0.6	10		6.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	9.0	7.70
	Separability	0.1	4		0.4		
	Combustibility	0.5	10		5.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	7.3	7.15
	Material Density	0.2	2		0.4		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	7		2.1		
	Air Pollution Potential	0.2		10	2.0	7.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	2		0.4	5.5	4.85
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	7		2.1		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For VCI PACKAGING MATERIALS**

Material Number 41

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	7		3.5	8.0	9.00
	Market for Commodity	0.5	9		4.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	7		2.8	5.2	7.10
	Technical Operating Restrictions	0.8	4		3.2		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	7		1.4	7.8	7.80
	Separability	0.2	7		1.4		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	7		1.4	6.2	7.00
	Separability	0.2	7		1.4		
	Biological Degradability	0.4	7		2.8		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	9.4	8.60
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	7		1.4	9.1	7.75
	Separability	0.1	7		0.7		
	Combustibility	0.5	10		5.0		
	Potential Damage to Equipment	0.3			2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	7		0.7	7.2	7.10
	Material Density	0.2	4		0.8		
	Compactibility	0.4	9		3.6		
	Biological Degradability	0.3	7		2.1		
	Air Pollution Potential	0.2		10	2.0	7.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	4		0.8	5.9	5.05
	Compactibility	0.3	9		2.7		
	Biological Degradability	0.3	8		2.4		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Cellulose Cushioning**

Material Number 42

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	4		2.0	4.0	7.00
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	4		1.6	4.0	6.50
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		8	8.0	8.0	
Pyrolysis	Fragmentability	0.2	9		1.8		6.30
	Separability	0.2	4		0.8	4.8	
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0		
	Water Pollution Potential	0.2		10	2.0	7.8	
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8		6.00
	Separability	0.2	4		0.8	4.2	
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0		
	Water Pollution Potential	0.2		10	2.0	7.8	
	Land Pollution Potential	0.2		7	1.4		
Baling	Resource Depletion Potential	0.4		6	2.4		6.70
	Compactibility	0.4	2		0.8	5.6	
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0		
	Water Pollution Potential	0.2		10	2.0	7.8	
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8		6.50
	Separability	0.1	4		0.4	6.8	
	Combustibility	0.5	6		3.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		8	1.2		
	Water Pollution Potential	0.2		10	2.0	6.2	
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9		6.15
	Material Density	0.2	2		0.4	4.9	
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0		
	Water Pollution Potential	0.2		10	2.0	7.4	
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	2		0.4		3.80
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2	3.4	
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0		
	Water Pollution Potential	0.2		0	0.0	4.2	
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For WAX PAPER**

Material Number 43

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	4.0	7.00
	Market for Commodity	0.5	5		2.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	3.0	6.00
	Technical Operating Restrictions	0.6	3		1.8		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	10		2.0	6.4	7.10
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	7		2.8		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	10		2.0	5.2	6.50
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	5		2.0		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	6.4	7.10
	Baleability	0.6	10		6.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	10		2.0	8.8	7.60
	Separability	0.1	3		0.3		
	Combustibility	0.5	9		4.5		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	10		1.0	7.3	7.15
	Material Density	0.2	4		0.8		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	5		1.5		
	Air Pollution Potential	0.2		10	2.0	7.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	4		0.8	5.3	4.75
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	5		1.5		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Wrapping Paper**

Material Number 44

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating		
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total			
Direct Reuse	Separability	0.5	4		2.0	4.5	7.25		
	Market for Commodity	0.5	5		2.5				
	Resource Depletion Potential	1.0		10	10.0	10.0			
Recycle	Separability	0.4	4		1.6	5.8	7.40		
	Technical Operating Restrictions	0.6	7		4.2				
	Resource Depletion Potential	1.0		8	8.0	9.0			
Pyrolysis	Fragmentability	0.2	8		1.6	7.4	7.60		
	Separability	0.2	4		0.8				
	Chemical Degradability	0.4	10		4.0				
	Technical Operating Restrictions	0.2	5		1.0				
	Air Pollution Potential	0.2		10	2.0	7.8			
	Water Pollution Potential	0.2		10	2.0				
	Land Pollution Potential	0.2		7	1.4				
	Resource Depletion Potential	0.4		6	2.4				
Composting	Fragmentability	0.2	8		1.6	6.2	7.00		
	Separability	0.2	4		0.8				
	Biological Degradability	0.4	8		3.2				
	Technical Operating Restrictions	0.2	3		0.6				
	Air Pollution Potential	0.2		10	2.0	7.8			
	Water Pollution Potential	0.2		10	2.0				
	Land Pollution Potential	0.2		7	1.4				
	Resource Depletion Potential	0.4		6	2.4				
Baling	Compactibility	0.4	4		1.6	7.0	7.40		
	Baleability	0.6	9		5.4				
	Air Pollution Potential	0.2		10	2.0	7.8			
	Water Pollution Potential	0.2		10	2.0				
	Land Pollution Potential	0.2		7	1.4				
	Resource Depletion Potential	0.4		6	2.4				
	Incineration	Fragmentability	0.2	8		1.6		9.0	7.70
		Separability	0.1	4		0.4			
Combustibility		0.5	10		5.0				
Potential Damage to Equipment		0.3	10		2.0				
Air Pollution Potential		0.2		7	1.4	6.4			
Water Pollution Potential		0.2		10	2.0				
Land Pollution Potential		0.2		7	1.4				
Resource Depletion Potential		0.4		4	1.6				
Sanitary Landfill	Fragmentability	0.1	8		0.8	8.0	7.50		
	Material Density	0.2	4		0.8				
	Compactibility	0.4	10		4.0				
	Biological Degradability	0.3	8		2.4				
	Air Pollution Potential	0.2		10	2.0	7.0			
	Water Pollution Potential	0.2		8	1.6				
	Land Pollution Potential	0.2		5	1.0				
	Resource Depletion Potential	0.4		6	2.4				
Sea Disposal	Material Density	0.2	4		0.8	6.2	5.20		
	Compactibility	0.3	10		3.0				
	Biological Degradability	0.3	8		2.4				
	Regulatory Operational Restrictions	0.2	0		0.0				
	Air Pollution Potential	0.2		10	2.0	4.2			
	Water Pollution Potential	0.2		0	0.0				
	Land Pollution Potential	0.2		7	1.4				
	Resource Depletion Potential	0.4		2	0.8				

**Numerical Process Evaluation Matrix
For Chipboard Box**

Material Number 45

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	4		2.0	6.5	8.25
	Market for Commodity	0.5	9		4.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	4		1.6	7.0	8.00
	Technical Operating Restrictions	0.6	9		5.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	7.4	7.60
	Separability	0.2	4		0.8		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	6.2	7.00
	Separability	0.2	4		0.8		
	Biological Degradability	0.4	8		3.2		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	9.4	8.60
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	9.0	7.70
	Separability	0.1	4		0.4		
	Combustibility	0.5	10		5.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	8.0	7.50
	Material Density	0.2	4		0.8		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	8		2.4		
	Air Pollution Potential	0.2		10	2.0	7.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	4		0.8	6.2	5.20
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	8		2.4		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For SPIRALLY WOUND FIBER CAN**

Material Number 46

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	7		3.5	8.5	9.25
	Market for Commodity	0.5	10		5.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	7		2.8	3.4	8.20
	Technical Operating Restrictions	0.6	1		0.6		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	6		1.2	6.4	7.10
	Separability	0.2	7		1.4		
	Chemical Degradability	0.4	7		2.8		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	6		1.2	4.8	6.30
	Separability	0.2	7		1.4		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	8.8	8.30
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	6		1.2	8.4	7.40
	Separability	0.1	7		0.7		
	Combustibility	0.5	9		4.5		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	6		0.6	6.8	6.80
	Material Density	0.2	5		1.0		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	6.8	
	Water Pollution Potential	0.2		7	1.4		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	5		1.0	5.2	4.70
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For POLYOLEFIN/FOIL/PAPER**

Material Number 47

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	1.8	5.40
	Technical Operating Restrictions	0.6	1		0.6		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	5.2	6.50
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	5.2	5.70
	Separability	0.1	3		0.3		
	Combustibility	0.5	3		1.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.9	6.65
	Material Density	0.2	7		1.4		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	7		1.4	4.4	4.30
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Paperboard Box**

Material Number 48

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	7		3.5	8.5	9.25
	Market for Commodity	0.5	10		5.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	7		2.8	5.8	7.40
	Technical Operating Restrictions	0.6	5		3.0		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	7		1.4	7.4	7.60
	Separability	0.2	7		1.4		
	Chemical Degradability	0.4	9		3.6		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	7		1.4	4.2	8.00
	Separability	0.2	7		1.4		
	Biological Degradability	0.4	2		0.8		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	8.8	8.30
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	7		1.4	8.6	7.50
	Separability	0.1	7		0.7		
	Combustibility	0.5	9		4.5		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	7		0.7	6.6	6.80
	Material Density	0.2	4		0.8		
	Compactibility	0.4	9		3.6		
	Biological Degradability	0.3	5		1.5		
	Air Pollution Potential	0.2		10	2.0	7.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	4		0.8	5.0	4.60
	Compactibility	0.3	9		2.7		
	Biological Degradability	0.3	5		1.5		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For METAL EDGED PAPERBOARD**

Material Number 49

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	7		3.5	8.5	9.25
	Market for Commodity	0.5	10		5.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	7		2.8	5.8	7.40
	Technical Operating Restrictions	0.6	5		3.0		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	7		1.4	7.4	7.60
	Separability	0.2	7		1.4		
	Chemical Degradability	0.4	9		3.6		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.6	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	7		1.4	4.2	6.00
	Separability	0.2	7		1.4		
	Biological Degradability	0.4	2		0.8		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	8.8	8.30
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	7		1.4	8.6	7.50
	Separability	0.1	7		0.7		
	Combustibility	0.5	9		4.5		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	7		0.7	6.6	6.80
	Material Density	0.2	4		0.8		
	Compactibility	0.4	9		3.6		
	Biological Degradability	0.3	5		1.5		
	Air Pollution Potential	0.2		10	2.0	7.0	
	Water Pollution Potential	0.2		8	1.6		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	4		0.8	5.0	4.60
	Compactibility	0.3	9		2.7		
	Biological Degradability	0.3	5		1.5		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

Numerical Process Evaluation Matrix
For **WOOD CLEATED FIBERBOARD**

Material Number 50

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	7		3.5	8.5	9.25
	Market for Commodity	0.5	10		5.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	7		2.8	4.0	6.50
	Technical Operating Restrictions	0.6	2		1.2		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	6		1.2	7.6	7.70
	Separability	0.2	7		1.4		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	6		1.2	6.2	7.00
	Separability	0.2	7		1.4		
	Biological Degradability	0.4	7		2.8		
	Technical Operating Restrictions	0.2	4		0.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	8.8	8.30
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	6		1.2	7.9	7.15
	Separability	0.1	7		0.7		
	Combustibility	0.5	6		4.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	6		0.6	6.7	6.95
	Material Density	0.2	2		0.4		
	Compactibility	0.4	9		3.6		
	Biological Degradability	0.3	7		2.1		
	Air Pollution Potential	0.2		10	2.0	7.2	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	2		0.4	5.2	4.70
	Compactibility	0.3	9		2.7		
	Biological Degradability	0.3	7		2.1		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For ABS Tray**

Material Number 51

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	5		2.5	4.5	7.25
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	5		2.0	4.4	6.70
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	8		1.6	4.8	6.30
	Separability	0.2	5		1.0		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	4.2	6.00
	Separability	0.2	5		1.0		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	9		3.6	6.6	7.20
	Baleability	0.6	5		3.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	6.7	6.45
	Separability	0.1	5		0.5		
	Combustibility	0.5	6		3.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	6.0	6.70
	Material Density	0.2	6		1.2		
	Compactibility	0.4	7		2.8		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	6		1.2	3.3	3.80
	Compactibility	0.3	7		2.1		
	Biological Degradability	0.3	0		0.0		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Cellophane Wrapping**

Material Number 52

Process	Characteristics	Relative Importance	Determined				
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	Total Disposal Rating
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	2		0.8	5.6	6.70
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	7.7	6.95
	Separability	0.1	3		0.3		
	Combustibility	0.5	8		4.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	6.1	6.75
	Material Density	0.2	8		1.6		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	8		1.6	4.6	4.40
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Cellulose Wrapping**

Material Number - 53

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating		
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total			
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00		
	Market for Commodity	0.5	1		0.5				
	Resource Depletion Potential	1.0		10	10.0				
Recycle	Separability	0.4	3		1.2	3.6	6.30		
	Technical Operating Restrictions	0.6	4		2.4				
	Resource Depletion Potential	1.0		9	9.0				
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20		
	Separability	0.2	3		0.6				
	Chemical Degradability	0.4	4		1.6				
	Technical Operating Restrictions	0.2	3		0.6				
	Air Pollution Potential	0.2		10	2.0	7.8			
	Water Pollution Potential	0.2		10	2.0				
	Land Pollution Potential	0.2		7	1.4				
	Resource Depletion Potential	0.4		6	2.4				
Composting	Fragmentability	0.2	9		1.8	4.0	5.90		
	Separability	0.2	3		0.6				
	Biological Degradability	0.4	4		1.6				
	Technical Operating Restrictions	0.2	0		0.0				
	Air Pollution Potential	0.2		10	2.0	7.8			
	Water Pollution Potential	0.2		10	2.0				
	Land Pollution Potential	0.2		7	1.4				
	Resource Depletion Potential	0.4		6	2.4				
Baling	Compactibility	0.4	2		0.8	5.6	6.70		
	Baleability	0.6	8		4.8				
	Air Pollution Potential	0.2		10	2.0	7.8			
	Water Pollution Potential	0.2		10	2.0				
	Land Pollution Potential	0.2		7	1.4				
	Resource Depletion Potential	0.4		6	2.4				
	Incineration	Fragmentability	0.2	9		1.8		5.7	5.95
		Separability	0.1	3		0.3			
Combustibility		0.5	4		2.0				
Potential Damage to Equipment		0.2	8		1.6				
Air Pollution Potential		0.2		6	1.2	6.2			
Water Pollution Potential		0.2		10	2.0				
Land Pollution Potential		0.2		7	1.4				
Resource Depletion Potential		0.4		4	1.6				
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.7	6.55		
	Material Density	0.2	6		1.2				
	Compactibility	0.4	6		2.4				
	Biological Degradability	0.3	4		1.2				
	Air Pollution Potential	0.2		10	2.0	7.4			
	Water Pollution Potential	0.2		10	2.0				
	Land Pollution Potential	0.2		5	1.0				
	Resource Depletion Potential	0.4		6	2.4				
Sea Disposal	Material Density	0.2	6		1.2	4.2	4.20		
	Compactibility	0.3	6		1.8				
	Biological Degradability	0.3	4		1.2				
	Regulatory Operational Restrictions	0.2	0		0.0				
	Air Pollution Potential	0.2		10	2.0	4.2			
	Water Pollution Potential	0.2		0	0.0				
	Land Pollution Potential	0.2		7	1.4				
	Resource Depletion Potential	0.4		2	0.8				

**Numerical Process Evaluation Matrix
For Cellulose Container**

Material Number 54

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	5		2.5	4.5	7.25
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	5		2.0	4.4	6.70
	Technical Operating Restrictions	0.8	4		2.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	8		1.6	4.8	8.30
	Separability	0.2	5		1.0		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	4.2	6.00
	Separability	0.2	5		1.0		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		6	2.4			
Baling	Compactibility	0.4	10		4.0	7.0	7.40
	Baleability	0.6	5		3.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		6	2.4			
Incineration	Fragmentability	0.2	8		1.6	6.7	6.45
	Separability	0.1	5		0.5		
	Combustibility	0.5	6		3.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		4	1.6			
Sanitary Landfill	Fragmentability	0.1	8		0.8	6.2	6.80
	Material Density	0.2	7		1.4		
	Compactibility	0.4	7		2.8		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
Resource Depletion Potential	0.4		6	2.4			
Sea Disposal	Material Density	0.2	7		1.4	4.7	4.45
	Compactibility	0.3	7		2.1		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

Numerical Process Evaluation Matrix
For Strippable Coating-Cold

Material Number 55

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	2		1.0	1.0	5.50
	Market for Commodity	0.5	0		0.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	2		0.8	0.8	4.90
	Technical Operating Restrictions	0.6	0		0.0		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	3.8	5.80
	Separability	0.2	2		0.4		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	3.8	5.80
	Separability	0.2	2		0.4		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	5.2	6.50
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	5.6	5.90
	Separability	0.1	2		0.2		
	Combustibility	0.5	4		2.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.7	6.55
	Material Density	0.2	6		1.2		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	6		1.2	4.2	4.20
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Strippable Coating-Hot**

Material Number 56

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	2		1.0	1.0	6.50
	Market for Commodity	0.5	0		0.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	2		0.8	0.8	4.90
	Technical Operating Restrictions	0.6	0		0.0		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	3.8	5.80
	Separability	0.2	2		0.4		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	3.8	5.80
	Separability	0.2	2		0.4		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	5.2	6.50
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	5.6	5.90
	Separability	0.1	2		0.2		
	Combustibility	0.5	4		2.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.7	6.55
	Material Density	0.2	6		1.2		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	6		1.2	4.2	4.20
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Epoxy Coating**

Material Number 57

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	2		1.0	1.0	5.50
	Market for Commodity	0.5	0		0.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	2		0.8	1.4	5.20
	Technical Operating Restrictions	0.6	1		0.6		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	9		1.8	4.4	6.10
	Separability	0.2	2		0.4		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	3.8	5.80
	Separability	0.2	2		0.4		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	5.2	6.50
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	5.6	5.90
	Separability	0.1	2		0.2		
	Combustibility	0.5	4		2.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.9	6.65
	Material Density	0.2	7		1.4		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	7		1.4	3.2	3.70
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	0		0.0		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Surlyn Wrapping**

Material Number 58

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	5		2.5	4.5	7.25
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	5		2.0	4.4	6.70
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	4.8	6.30
	Separability	0.2	5		1.0		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	4.2	6.00
	Separability	0.2	5		1.0		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	4.0	5.90
	Baleability	0.6	6		3.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	6.2	6.20
	Separability	0.1	5		0.5		
	Combustibility	0.5	5		2.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	5.8	6.60
	Material Density	0.2	5		1.0		
	Compactibility	0.4	7		2.8		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	5		1.0	4.3	4.25
	Compactibility	0.3	7		2.1		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For SURLYN CUSHIONING**

Material Number 59

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	4		2.0	3.0	6.50
	Market for Commodity	0.5	2		1.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	4		1.6	4.0	6.50
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	4.6	6.20
	Separability	0.2	4		0.8		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	4.0	5.90
	Separability	0.2	4		0.8		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		6	2.4			
Baling	Compactibility	0.4	8		3.2	6.8	7.30
	Baleability	0.6	6		3.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		6	2.4			
Incineration	Fragmentability	0.2	8		1.6	6.1	6.15
	Separability	0.1	4		0.4		
	Combustibility	0.5	5		2.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	5.8	6.60
	Material Density	0.2	5		1.0		
	Compactibility	0.4	7		2.8		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
Resource Depletion Potential	0.4		6	2.4			
Sea Disposal	Material Density	0.2	5		1.0	4.3	4.25
	Compactibility	0.3	7		2.1		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Bakelite Tray**

Material Number 60

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	5		2.5	4.5	7.25
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	5		2.0	2.6	5.80
	Technical Operating Restrictions	0.6	1		0.6		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	8		1.6	4.8	6.30
	Separability	0.2	5		1.0		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		8	2.4		
Composting	Fragmentability	0.2	8		1.6	4.2	6.00
	Separability	0.2	5		1.0		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		8	2.4		
Baling	Compactibility	0.4	8		3.2	6.2	7.00
	Baleability	0.6	5		3.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		8	2.4		
Incineration	Fragmentability	0.2	8		1.6	5.2	5.70
	Separability	0.1	5		0.5		
	Combustibility	0.5	3		1.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	6.4	6.90
	Material Density	0.2	8		1.6		
	Compactibility	0.4	7		2.8		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	8		1.6	4.9	4.55
	Compactibility	0.3	7		2.1		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Polyolefin Wrapping**

Material Number 61

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	1.8	5.40
	Technical Operating Restrictions	0.6	1		0.6		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	5.2	6.50
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	5.2	5.70
	Separability	0.1	3		0.3		
	Combustibility	0.5	3		1.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.9	6.65
	Material Density	0.2	7		1.4		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	7		1.4	4.4	4.30
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For LUCITE CONTAINER**

Material Number 62

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	5		2.5	4.5	7.25
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	5		2.0	4.4	6.70
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	4.8	6.30
	Separability	0.2	5		1.0		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	4.2	6.00
	Separability	0.2	5		1.0		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	9		3.6	7.2	7.50
	Baleability	0.6	6		3.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	5.7	5.95
	Separability	0.1	5		0.5		
	Combustibility	0.5	4		2.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	6.0	6.70
	Material Density	0.2	6		1.2		
	Compactibility	0.4	7		2.8		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	6		1.2	4.5	4.35
	Compactibility	0.3	7		2.1		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For Nylon Sack**

Material Number 63

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	3.0	6.50
	Market for Commodity	0.5	3		1.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	5.2	6.5
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	4.7	5.45
	Separability	0.1	3		0.3		
	Combustibility	0.5	2		1.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.9	6.65
	Material Density	0.2	7		1.4		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	7		1.4	4.4	4.30
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

Numerical Process Evaluation Matrix
For NYLON CORD

Material Number 64

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	5.2	6.50
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	4.7	5.45
	Separability	0.1	3		0.3		
	Combustibility	0.5	2		1.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.9	6.65
	Material Density	0.2	7		1.4		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	7		1.4	4.4	4.30
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For POLYCARBONATE WRAPPING**

Material Number 65

Process	Characteristics	Relative Importance	Determined				
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	Total Disposal Rating
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	5.2	6.50
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	6.7	6.45
	Separability	0.1	3		0.3		
	Combustibility	0.5	6		3.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.9	6.65
	Material Density	0.2	7		1.4		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	7		1.4	4.4	4.30
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For POLYCARBONATE CONTAINER**

Material Number 66

Material Number							
Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	5		2.5	4.5	7.25
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	5		2.0	4.4	6.70
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	4.8	6.30
	Separability	0.2	5		1.0		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	4.2	6.00
	Separability	0.2	5		1.0		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	7.0	7.40
	Baleability	0.6	5		3.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	5.2	5.70
	Separability	0.1	5		0.5		
	Combustibility	0.5	3		1.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	6.2	6.80
	Material Density	0.2	7		1.4		
	Compactibility	0.4	7		2.8		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	7		1.4	4.7	4.45
	Compactibility	0.3	7		2.1		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For DACRON STRAP**

Material Number 67

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	5.2	6.50
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	7.7	6.95
	Separability	0.1	3		0.3		
	Combustibility	0.5	8		4.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	6.3	6.85
	Material Density	0.2	9		1.8		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	9		1.8	4.8	4.50
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

Numerical Process Evaluation Matrix
For **MYLAR POUCH**

Material Number 68

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	5.2	6.50
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	7.7	6.95
	Separability	0.1	3		0.3		
	Combustibility	0.5	8		4.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	6.3	6.85
	Material Density	0.2	9		1.8		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	9		1.8	4.8	4.50
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

Numerical Process Evaluation Matrix
For POLYETHYLENE WRAPPING

Material Number 69

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		6	2.4			
Baling	Compactibility	0.4	2		0.8	5.0	6.40
	Baleability	0.6	7		4.2		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		6	2.4			
Incineration	Fragmentability	0.2	9		1.8	6.7	6.45
	Separability	0.1	3		0.3		
	Combustibility	0.5	6		3.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.5	6.45
	Material Density	0.2	5		1.0		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
Resource Depletion Potential	0.4		6	2.4			
Sea Disposal	Material Density	0.2	5		1.0	4.0	4.10
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		2	0.8			

**Numerical Process Evaluation Matrix
For POLYETHYLENE CONTAINER**

Material Number 70

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	5		2.5	4.5	7.25
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	5		2.0	4.4	6.70
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	4.8	6.30
	Separability	0.2	5		1.0		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	4.2	6.00
	Separability	0.2	5		1.0		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		6	2.4			
Baling	Compactibility	0.4	10		4.0	7.0	7.40
	Baleability	0.6	5		3.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	6.7	6.45
	Separability	0.1	5		0.5		
	Combustibility	0.5	6		3.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		4	1.6			
Sanitary Landfill	Fragmentability	0.1	8		0.8	5.8	6.60
	Material Density	0.2	5		1.0		
	Compactibility	0.4	7		2.8		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
Resource Depletion Potential	0.4		6	2.4			
Sea Disposal	Material Density	0.2	5		1.0	4.3	4.25
	Compactibility	0.3	7		2.1		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

Numerical Process Evaluation Matrix
For **POLYPROPYLENE CORD**

Material Number 71

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	5.2	6.50
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	6.7	6.45
	Separability	0.1	3		0.3		
	Combustibility	0.5	6		3.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.5	6.45
	Material Density	0.2	5		1.0		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	5		1.0	4.0	4.10
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For POLYPROPYLENE WRAPPING**

Material Number 72

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	3.6	8.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	2		0.8	5.6	6.70
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	6.7	6.45
	Separability	0.1	3		0.3		
	Combustibility	0.5	6		3.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.5	6.45
	Material Density	0.2	5		1.0		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	5		1.0	4.0	4.10
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For POLY PROPYLENE CUSHIONING**

Material Number 73

Process	Characteristics	Relative Importance	Determined				
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	Total Disposal Rating
Direct Reuse	Separability	0.5	4		2.0	3.0	6.50
	Market for Commodity	0.5	2		1.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	4		1.6	4.0	6.50
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	4.8	6.30
	Separability	0.2	4		0.8		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.2	6.00
	Separability	0.2	4		0.8		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	8.2	8.00
	Baleability	0.6	7		4.2		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	6.8	6.50
	Separability	0.1	4		0.4		
	Combustibility	0.5	6		3.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.5	6.45
	Material Density	0.2	5		1.0		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	5		1.0	4.0	4.10
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

Numerical Process Evaluation Matrix
For **POLYPROPYLENE CONTAINER**

Material Number 74

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	5		2.5	4.5	7.25
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	5		2.0	4.4	6.70
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	4.8	6.30
	Separability	0.2	5		1.0		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	4.2	6.00
	Separability	0.2	5		1.0		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	9		3.6	6.6	7.20
	Baleability	0.6	5		3.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	6.7	6.45
	Separability	0.1	5		0.5		
	Combustibility	0.5	6		3.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	5.8	6.60
	Material Density	0.2	5		1.0		
	Compactibility	0.4	7		2.8		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	5		1.0	4.3	4.25
	Compactibility	0.3	7		2.1		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For POLYSTYRENE WRAPPING**

Material Number 75

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	2		0.8	5.6	6.70
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	5.7	6.45
	Separability	0.1	3		0.3		
	Combustibility	0.5	6		3.0		
	Potential Damage to Equipment	0.3	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.7	6.55
	Material Density	0.2	6		1.2		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	6		1.2	4.2	4.20
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

Numerical Process Evaluation Matrix
For **POLYSTYRENE CONTAINER**

Material Number 76

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	5		2.5	4.5	7.25
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	5		2.0	4.4	6.70
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	4.8	6.30
	Separability	0.2	5		1.0		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	4.2	6.00
	Separability	0.2	5		1.0		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	8		3.2	6.2	7.00
	Baleability	0.6	5		3.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	6.7	6.45
	Separability	0.1	5		0.5		
	Combustibility	0.5	6		3.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	6.0	6.70
	Material Density	0.2	6		1.2		
	Compactibility	0.4	7		2.8		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	6		1.2	4.5	4.35
	Compactibility	0.3	7		2.1		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		9	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For STYROFOAM CONTAINER**

Material Number 77

Process	Characteristics	Relative Importance	Determined				
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	Total Disposal Rating
Direct Reuse	Separability	0.5	5		2.5	4.5	7.25
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	5		2.0	4.4	6.70
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	4.8	6.30
	Separability	0.2	5		1.0		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	4.2	6.00
	Separability	0.2	5		1.0		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	6.4	7.10
	Baleability	0.6	4		2.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	5.2	5.70
	Separability	0.1	5		0.5		
	Combustibility	0.5	3		1.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	6.0	6.70
	Material Density	0.2	6		1.2		
	Compactibility	0.4	7		2.8		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	6		1.2	4.5	4.35
	Compactibility	0.3	7		2.1		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For STYROFOAM CUSHIONING**

Material Number 76

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	4		2.0	3.0	6.50
	Market for Commodity	0.5	2		1.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	4		1.6	4.0	6.50
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	9		1.8	4.8	6.30
	Separability	0.2	4		0.8		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.2	6.00
	Separability	0.2	4		0.8		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	6.4	7.10
	Baleability	0.6	4		2.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	5.3	5.75
	Separability	0.1	4		0.4		
	Combustibility	0.5	3		1.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.7	6.55
	Material Density	0.2	6		1.2		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	6		1.2	4.2	4.20
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For STYROFOAM DUNNAGE**

Material Number 79

Process	Characteristics	Relative Importance	Determined				
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	Total Disposal Rating
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	6.4	7.10
	Baleability	0.6	4		2.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	5.2	5.70
	Separability	0.1	3		0.3		
	Combustibility	0.5	3		1.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.7	6.55
	Material Density	0.2	6		1.2		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	6		1.2	4.2	4.20
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For POLYSULPHONE TRAY**

Material Number 80

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	5		2.5	4.5	7.25
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	5		2.0	4.4	6.70
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	8		1.6	4.8	6.30
	Separability	0.2	5		1.0		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	4.2	6.00
	Separability	0.2	5		1.0		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	7.0	7.40
	Baleability	0.6	5		3.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	5.2	5.70
	Separability	0.1	5		0.5		
	Combustibility	0.5	3		1.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	6.0	6.70
	Material Density	0.2	6		1.2		
	Compactibility	0.4	7		2.8		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	6		1.2	4.5	4.35
	Compactibility	0.3	7		2.1		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For TEFLON WRAPPING**

Material Number 81

Process	Characteristics	Relative Importance	Determined				
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	Total Disposal Rating
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	6.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	2		0.8	5.6	6.70
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	4.7	5.45
	Separability	0.1	3		0.3		
	Combustibility	0.5	2		1.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	6.3	6.85
	Material Density	0.2	9		1.8		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	9		1.8	4.8	4.50
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For TEFLON CONTAINER**

Material Number 82

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	5		2.5	4.5	7.25
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	5		2.0	4.4	6.70
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	8		1.6	4.8	6.30
	Separability	0.2	5		1.0		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	4.2	6.00
	Separability	0.2	5		1.0		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	7		2.8	5.2	6.50
	Baleability	0.6	4		2.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	4.7	5.45
	Separability	0.1	5		0.5		
	Combustibility	0.5	2		1.0		
	Potential Damage to Equipment	0.3	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	6.6	7.00
	Material Density	0.2	9		1.8		
	Compactibility	0.4	7		2.8		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	9		1.8	5.1	4.65
	Compactibility	0.3	7		2.1		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For POLYURETHANE WRAPPING**

Material Number 83

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	4		2.0	2.5	6.25
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	4		1.6	4.0	6.50
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	4.8	6.30
	Separability	0.2	4		0.8		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.2	6.00
	Separability	0.2	4		0.8		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	2		0.8	5.6	6.70
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	5.3	5.75
	Separability	0.1	4		0.4		
	Combustibility	0.5	3		1.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.7	6.55
	Material Density	0.2	6		1.2		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	6		1.2	4.2	4.20
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

Numerical Process Evaluation Matrix
For **POLYURETHANE CUSHIONING**

Material Number 84

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.5	6.25
	Market for Commodity	0.5	2		1.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	8		3.2	7.4	7.60
	Baleability	0.6	7		4.2		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	5.7	5.95
	Separability	0.1	3		0.3		
	Combustibility	0.5	4		2.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.7	6.55
	Material Density	0.2	6		1.2		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	6		1.2	4.2	4.20
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For POLYURETHANE CONTAINER**

Material Number 85

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	5		2.5	4.5	7.25
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	5		2.0	4.4	6.70
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	4.8	6.30
	Separability	0.2	5		1.0		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	4.2	6.00
	Separability	0.2	5		1.0		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	10		4.0	7.0	7.40
	Baleability	0.6	5		3.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	5.7	5.95
	Separability	0.1	5		0.5		
	Combustibility	0.5	4		2.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	6.2	6.80
	Material Density	0.2	7		1.4		
	Compactibility	0.4	7		2.8		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	7		1.4	4.7	4.45
	Compactibility	0.3	7		2.1		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For PVA WRAPPING**

Material Number 86

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	3		1.2	6.0	6.90
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	6.7	6.45
	Separability	0.1	3		0.3		
	Combustibility	0.5	6		3.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.9	6.65
	Material Density	0.2	7		1.4		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	7		1.4	4.4	4.30
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For PVAC WRAPPING**

Material Number 87

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	3		1.2	6.0	6.90
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	5.2	5.70
	Separability	0.1	3		0.3		
	Combustibility	0.5	3		1.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.7	6.55
	Material Density	0.2	6		1.2		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	6		1.2	4.2	4.20
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For PVC WRAPPING**

Material Number 88

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	3		1.2	6.0	6.90
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	5.7	5.95
	Separability	0.1	3		0.3		
	Combustibility	0.5	4		2.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	6.1	6.75
	Material Density	0.2	8		1.6		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	8		1.6	4.6	4.40
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For PVC CONTAINER**

Material Number 89

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	5		2.5	4.5	7.25
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	5		2.0	4.4	6.70
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	4.8	6.30
	Separability	0.2	5		1.0		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	4.2	6.00
	Separability	0.2	5		1.0		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Baling	Resource Depletion Potential	0.4		6	2.4		
	Compactibility	0.4	2		0.8	5.6	6.70
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
Land Pollution Potential	0.2		7	1.4			
Incineration	Resource Depletion Potential	0.4		6	2.4		
	Fragmentability	0.2	8		1.6	5.7	5.95
	Separability	0.1	5		0.5		
	Combustibility	0.5	4		2.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		4	1.6			
Sanitary Landfill	Fragmentability	0.1	8		0.8	6.4	6.90
	Material Density	0.2	8		1.6		
	Compactibility	0.4	7		2.8		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
Resource Depletion Potential	0.4		6	2.4			
Sea Disposal	Material Density	0.2	8		1.6	4.9	4.55
	Compactibility	0.3	7		2.1		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		2	0.8			

**Numerical Process Evaluation Matrix
For SARAN WRAPPING**

Material Number 90

Process	Characteristics	Relative Importance	Determined				
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	Total Disposal Rating
Direct Reuse	Separability	0.5	3		1.5	3.5	6.75
	Market for Commodity	0.5	4		2.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	3.6	6.30
	Technical Operating Restrictions	0.6	4		2.4		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.80
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	5.2	6.50
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		6	2.4			
Incineration	Fragmentability	0.2	9		1.8	5.2	5.70
	Separability	0.1	3		0.3		
	Combustibility	0.5	3		1.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	6.3	6.85
	Material Density	0.2	9		1.8		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	9		1.8	4.8	4.50
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	4		1.2		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For LATEX CUSHIONING**

Material Number 91

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	1.8	5.40
	Technical Operating Restrictions	0.6	1		0.6		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	2		0.8	5.6	6.70
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	6.7	6.45
	Separability	0.1	3		0.3		
	Combustibility	0.5	6		3.0		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.5	6.45
	Material Density	0.2	5		1.0		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	5		1.0	2.8	3.50
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	0		0.0		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For RUBBERIZED HAIR**

Material Number 92

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	7		3.5	8.5	9.25
	Market for Commodity	0.5	10		5.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	2		0.8	1.4	5.20
	Technical Operating Restrictions	0.8	1		0.8		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	10		2.0	4.2	6.00
	Separability	0.2	2		0.4		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	1		0.2		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	3.8	5.80
	Separability	0.2	2		0.4		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	4		1.6	6.4	7.10
	Baleability	0.8	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	6.1	6.15
	Separability	0.1	2		0.2		
	Combustibility	0.5	5		2.5		
	Potential Damage to Equipment	0.3	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.9	6.65
	Material Density	0.2	7		1.4		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	5		1.0	3.4	3.80
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	2		0.6		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

Numerical Process Evaluation Matrix
For CANVASS, RUBBERIZED

Material Number 93

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	6		3.0	8.0	9.00
	Market for Commodity	0.5	10		5.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	6		2.4	3.0	6.00
	Technical Operating Restrictions	0.6	1		0.6		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	6		1.2	3.6	5.70
	Separability	0.2	6		1.2		
	Chemical Degradability	0.4	2		0.8		
	Technical Operating Restrictions	0.2	2		0.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	6		1.2	3.6	5.70
	Separability	0.2	6		1.2		
	Biological Degradability	0.4	3		1.2		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		6	2.4			
Baling	Compactibility	0.4	6		2.4	7.8	7.80
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	6		1.2	5.9	6.05
	Separability	0.1	6		0.6		
	Combustibility	0.5	5		2.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	6		0.6	6.4	6.90
	Material Density	0.2	8		1.6		
	Compactibility	0.4	9		3.6		
	Biological Degradability	0.3	2		0.6		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	8		1.6	4.9	4.55
	Compactibility	0.3	9		2.7		
	Biological Degradability	0.3	2		0.6		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For COTTON CUSHIONING**

Material Number 94

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.5	6.25
	Market for Commodity	0.5	2		1.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	4.8	6.90
	Technical Operating Restrictions	0.8	6		3.6		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	10		2.0	7.6	7.70
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	10		2.0	6.4	7.10
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	8		3.2		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	2		0.8	6.2	7.00
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	10		2.0	9.3	7.85
	Separability	0.1	3		0.3		
	Combustibility	0.5	10		5.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	10		1.0	9.4	8.30
	Material Density	0.2	10		2.0		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	8		2.4		
	Air Pollution Potential	0.2		10	2.0	7.2	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	10		2.0	7.4	5.80
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	8		2.4		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

Numerical Process Evaluation Matrix
For **COTTON RAG**

Material Number 95

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	4.0	7.00
	Market for Commodity	0.5	5		2.5		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	4.8	6.90
	Technical Operating Restrictions	0.6	6		3.6		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	6.8	7.30
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	9		3.6		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	6.0	6.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	8		3.2		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	2		0.8	6.2	7.00
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	8.9	7.65
	Separability	0.1	3		0.3		
	Combustibility	0.5	10		5.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	9.2	8.20
	Material Density	0.2	10		2.0		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	8		2.4		
	Air Pollution Potential	0.2		10	2.0	7.2	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	10		2.0	7.4	5.80
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	8		2.4		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For COTTON SACK**

Material Number 96

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	6.5	8.25
	Market for Commodity	0.5	10		5.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	4.8	6.90
	Technical Operating Restrictions	0.6	6		3.6		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	6.8	7.30
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	9		3.6		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	6.0	6.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	8		3.2		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	2		0.8	6.2	7.00
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	8.9	7.65
	Separability	0.1	3		0.3		
	Combustibility	0.5	10		5.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	9.2	8.20
	Material Density	0.2	10		2.0		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	8		2.4		
	Air Pollution Potential	0.2		10	2.0	7.2	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	10		2.0	7.4	5.80
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	8		2.4		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For FELT CUSHIONING**

Material Number 97

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	2.5	6.25
	Market for Commodity	0.5	2		1.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	4.8	6.90
	Technical Operating Restrictions	0.6	6		3.6		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	10		2.0	7.6	7.70
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	10		2.0	6.4	7.10
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	8		3.2		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Baling	Resource Depletion Potential	0.4		6	2.4	5.8	6.80
	Compactibility	0.4	1		0.4		
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0		
	Water Pollution Potential	0.2		10	2.0		
Land Pollution Potential	0.2		7	1.4			
Resource Depletion Potential	0.4		6	2.4			
Incineration	Fragmentability	0.2	10		2.0	9.3	7.85
	Separability	0.1	3		0.3		
	Combustibility	0.5	10		5.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	10		1.0	9.4	8.30
	Material Density	0.2	10		2.0		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	8		2.4		
	Air Pollution Potential	0.2		10	2.0	7.2	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
Resource Depletion Potential	0.4		6	2.4			
Sea Disposal	Material Density	0.2	10		2.0	7.4	5.80
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	8		2.4		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		2	0.8			

**Numerical Process Evaluation Matrix
For BURLAP SACK**

Material Number _____

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	6.5	8.25
	Market for Commodity	0.5	10		5.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	3		1.2	4.8	6.90
	Technical Operating Restrictions	0.6	6		3.6		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	8		1.6	6.8	7.30
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	9		3.6		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	6.0	6.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	8		3.2		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	2		0.8	6.2	7.00
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	8.9	7.65
	Separability	0.1	3		0.3		
	Combustibility	0.5	10		5.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	8.8	8.00
	Material Density	0.2	8		1.6		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	8		2.4		
	Air Pollution Potential	0.2		10	2.0	7.2	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	8		1.6	7.0	5.60
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	8		2.4		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

Numerical Process Evaluation Matrix
For POLYOLEFIN/ALUMINUM/SCRIM
Material Number 99

Process	Characteristics	Relative Importance	Determined				
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	Total Disposal Rating
Direct Reuse	Separability	0.5	3		1.5	2.0	6.00
	Market for Commodity	0.5	1		0.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	1.8	5.40
	Technical Operating Restrictions	0.6	1		0.6		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	9		1.8	4.6	6.20
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	9		1.8	4.0	5.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	4		1.6		
	Technical Operating Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	1		0.4	5.2	6.50
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	9		1.8	5.2	5.70
	Separability	0.1	3		0.3		
	Combustibility	0.5	3		1.5		
	Potential Damage to Equipment	0.2	8		1.6		
	Air Pollution Potential	0.2		6	1.2	6.2	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	9		0.9	5.9	6.65
	Material Density	0.2	7		1.4		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	4		1.2		
	Air Pollution Potential	0.2		10	2.0	7.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	7		1.4	3.5	3.85
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	1		0.3		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For COOPERAGE KEG**

Material Number 100

Process	Characteristics	Relative Importance	Determined				
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	Total Disposal Rating
Direct Reuse	Separability	0.5	8		4.0	9.0	9.50
	Market for Commodity	0.5	10		5.0		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	8		3.2	4.4	6.70
	Technical Operating Restrictions	0.6	2		1.2		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	5		1.0		7.70
	Separability	0.2	8		1.6	7.6	
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0		
	Water Pollution Potential	0.2		10	2.0	7.8	
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	5		1.0		6.90
	Separability	0.2	8		1.6	6.0	
	Biological Degradability	0.4	7		2.8		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0		
	Water Pollution Potential	0.2		10	2.0	7.8	
	Land Pollution Potential	0.2		7	1.4		
Baling	Resource Depletion Potential	0.4		6	2.4		6.80
	Compactibility	0.4	4		1.6	5.8	
	Baleability	0.6	7		4.2		
	Air Pollution Potential	0.2		10	2.0		
	Water Pollution Potential	0.2		10	2.0	7.8	
	Land Pollution Potential	0.2		7	1.4		
Incineration	Resource Depletion Potential	0.4		6	2.4		7.10
	Fragmentability	0.2	5		1.0		
	Separability	0.1	8		0.8	7.8	
	Combustibility	0.5	8		4.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4		
	Water Pollution Potential	0.2		10	2.0	6.4	
Sanitary Landfill	Land Pollution Potential	0.2		7	1.4		6.10
	Resource Depletion Potential	0.4		4	1.6		
	Fragmentability	0.1	5		0.5		
	Material Density	0.2	2		0.4	5.0	
	Compactibility	0.4	5		2.0		
	Biological Degradability	0.3	7		2.1		
	Air Pollution Potential	0.2		10	2.0		
Sea Disposal	Water Pollution Potential	0.2		9	1.8	7.2	4.10
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
	Material Density	0.2	2		0.4		
	Compactibility	0.3	5		1.5	4.0	
	Biological Degradability	0.3	7		2.1		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0		4.2
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For EXCELSIOR DUNNAGE**

Material Number 101

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	3		1.5	3.0	6.50
	Market for Commodity	0.5	3		1.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	3		1.2	2.4	5.70
	Technical Operating Restrictions	0.6	2		1.2		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	10		2.0	7.6	7.70
	Separability	0.2	3		0.6		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	10		2.0	6.0	6.90
	Separability	0.2	3		0.6		
	Biological Degradability	0.4	7		2.8		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	3		1.2	6.6	7.20
	Baleability	0.6	9		5.4		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	10		2.0	8.8	7.60
	Separability	0.1	3		0.3		
	Combustibility	0.5	9		4.5		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	10		1.0	7.5	7.35
	Material Density	0.2	2		0.4		
	Compactibility	0.4	10		4.0		
	Biological Degradability	0.3	7		2.1		
	Air Pollution Potential	0.2		10	2.0	7.2	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	2		0.4	5.5	4.85
	Compactibility	0.3	10		3.0		
	Biological Degradability	0.3	7		2.1		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For PLYWOOD CRATE**

Material Number 102

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	7		3.5	8.5	9.30
	Market for Commodity	0.5	10		5.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	7		2.8	4.0	6.50
	Technical Operating Restrictions	0.6	2		1.2		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	6		1.2	7.6	7.70
	Separability	0.2	7		1.4		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	6		1.2	6.0	6.90
	Separability	0.2	7		1.4		
	Biological Degradability	0.4	7		2.8		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	4		1.6	6.4	7.10
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	6		1.2	7.9	7.15
	Separability	0.1	7		0.7		
	Combustibility	0.5	8		4.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	6		0.6	6.7	6.95
	Material Density	0.2	2		0.4		
	Compactibility	0.4	9		3.6		
	Biological Degradability	0.3	7		2.1		
	Air Pollution Potential	0.2		10	2.0	7.2	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	2		0.4	5.2	4.70
	Compactibility	0.3	9		2.7		
	Biological Degradability	0.3	7		2.1		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For VENEER CRATE**

Material Number 103

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	7		3.5	8.0	9.00
	Market for Commodity	0.5	9		4.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	7		2.8	4.0	6.50
	Technical Operating Restrictions	0.6	2		1.2		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	8		1.6	8.0	7.90
	Separability	0.2	7		1.4		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	8		1.6	6.8	7.30
	Separability	0.2	7		1.4		
	Biological Degradability	0.4	8		3.2		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	4		1.6	5.4	6.60
	Baleability	0.6	8		4.8		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	8		1.6	8.3	7.35
	Separability	0.1	7		0.7		
	Combustibility	0.5	8		4.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	8		0.8	7.2	7.20
	Material Density	0.2	2		0.4		
	Compactibility	0.4	9		3.6		
	Biological Degradability	0.3	8		2.4		
	Air Pollution Potential	0.2		10	2.0	7.2	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	2		0.4	5.2	4.70
	Compactibility	0.3	9		2.7		
	Biological Degradability	0.3	7		2.1		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For WOOD PALLET**

Material Number 104

Process	Characteristics	Relative Importance	Determined				Total Disposal Rating
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	
Direct Reuse	Separability	0.5	7		3.5	8.5	9.25
	Market for Commodity	0.5	10		5.0		
	Resource Depletion Potential	1.0		10	10.0		
Recycle	Separability	0.4	7		2.8	4.0	6.50
	Technical Operating Restrictions	0.6	2		1.2		
	Resource Depletion Potential	1.0		9	9.0		
Pyrolysis	Fragmentability	0.2	5		1.0	7.4	7.60
	Separability	0.2	7		1.4		
	Chemical Degradability	0.4	10		4.0		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	5		1.0	5.8	6.70
	Separability	0.2	7		1.4		
	Biological Degradability	0.4	7		2.8		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.6	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	4		1.6	5.8	6.80
	Baleability	0.6	7		4.2		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Incineration	Fragmentability	0.2	5		1.0	7.7	7.05
	Separability	0.1	7		0.7		
	Combustibility	0.5	8		4.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	5		0.5	5.2	6.20
	Material Density	0.2	3		0.6		
	Compactibility	0.4	5		2.0		
	Biological Degradability	0.3	7		2.1		
	Air Pollution Potential	0.2		10	2.0	7.2	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	3		0.6	4.2	4.20
	Compactibility	0.3	5		1.5		
	Biological Degradability	0.3	7		2.1		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

**Numerical Process Evaluation Matrix
For WIREBOUND WOOD CRATE**

Material Number 105

Process	Characteristics	Relative Importance	Determined				
			Operational Rating	Environmental Rating	Relative Rating	Sub-Total	Total Disposal Rating
Direct Reuse	Separability	0.5	7		3.5	8.0	9.00
	Market for Commodity	0.5	8		4.5		
	Resource Depletion Potential	1.0		10	10.0	10.0	
Recycle	Separability	0.4	7		2.8	4.0	6.50
	Technical Operating Restrictions	0.6	2		1.2		
	Resource Depletion Potential	1.0		9	9.0	9.0	
Pyrolysis	Fragmentability	0.2	2		0.4	6.4	7.10
	Separability	0.2	7		1.4		
	Chemical Degradability	0.4	9		3.6		
	Technical Operating Restrictions	0.2	5		1.0		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Composting	Fragmentability	0.2	2		0.4	5.2	6.50
	Separability	0.2	7		1.4		
	Biological Degradability	0.4	7		2.8		
	Technical Operating Restrictions	0.2	3		0.6		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		6	2.4		
Baling	Compactibility	0.4	5		2.0	6.2	7.00
	Baleability	0.6	7		4.2		
	Air Pollution Potential	0.2		10	2.0	7.8	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
Resource Depletion Potential	0.4		6	2.4			
Incineration	Fragmentability	0.2	2		0.4	7.1	6.75
	Separability	0.1	7		0.7		
	Combustibility	0.5	8		4.0		
	Potential Damage to Equipment	0.2	10		2.0		
	Air Pollution Potential	0.2		7	1.4	6.4	
	Water Pollution Potential	0.2		10	2.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		4	1.6		
Sanitary Landfill	Fragmentability	0.1	2		0.2	5.3	6.25
	Material Density	0.2	3		0.6		
	Compactibility	0.4	6		2.4		
	Biological Degradability	0.3	7		2.1		
	Air Pollution Potential	0.2		10	2.0	7.2	
	Water Pollution Potential	0.2		9	1.8		
	Land Pollution Potential	0.2		5	1.0		
	Resource Depletion Potential	0.4		6	2.4		
Sea Disposal	Material Density	0.2	3		0.6	4.5	4.35
	Compactibility	0.3	6		1.8		
	Biological Degradability	0.3	7		2.1		
	Regulatory Operational Restrictions	0.2	0		0.0		
	Air Pollution Potential	0.2		10	2.0	4.2	
	Water Pollution Potential	0.2		0	0.0		
	Land Pollution Potential	0.2		7	1.4		
	Resource Depletion Potential	0.4		2	0.8		

Custodians:

Army - GL
Navy - SA
Air Force - 69

Preparing activity:

Army - GL
Project 81GP-0001

Review activities:

Army - SM, WC, EL, ME, EA, MI, AV
Navy - AS, SH, EC, MC
Air Force - 99

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