[INCH-POUND]

A-A-59297
July 31, 1998
SUPERSEDING
MIL-B-16909B
November 8, 1961

COMMERCIAL ITEM DESCRIPTION

BUFFING AND POLISHING COMPOUNDS

The General Services Administration has authorized the use of this commercial item description, for all federal agencies.

1. SCOPE. This commercial item description covers buffing and polishing compounds used for metal finishing.

2. CLASSIFICATION. The buffing and polishing compounds shall conform to the following types and grades.

2.1 Types & Grades:

Type I	-	Rouge cake
Type II	-	Lime cake
Type III	-	Chrome cake
Grade A	-	Fast cutting and coloring
Grade B	-	Highly finished surface
Type IV	-	Emery cake
Type V	-	Steel compound
Type VI	-	Tripoli compound

3. SALIENT CHARACTERISTICS.

3.1 Materials. The six different types of buffing and polishing compounds shall contain the chemical compounds listed below when tested by qualitative chemical analysis methods.

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data which may improve this document should be sent to: Commander, Naval Air Warfare Center Aircraft Division, Code 414100B120-3, Highway 547, Lakehurst, NJ 08733-5100.

FSC 5350

a. Type I - rouge cake shall contain red rouge (Fe_2O_3) (also called jewelers rouge).
b. Type II - lime cake shall contain lime (CaO).
c. Type III - chrome cake shall contain aluminum oxide (Al_2O_3) and chromium oxide (Cr_2O_3).
d. Type IV - emery cake shall contain emery (Al_2O_3, Fe_3O_4, and Fe_2O_3) and silicon carbide (SiC).
e. Type V - steel compound shall contain fused aluminum oxide (Al_2O_3).
f. Type VI - tripoli compound shall contain silica (SiO_2).

3.2 Abrasive particle size. When tested in accordance with 4.3, the particle size of the abrasive material used in the type IV buffing and polishing compound shall be such that 100 percent by weight of the particles shall pass through the No. 200 U.S. Standard sieve, and not less than 95 percent by weight of the particles shall pass through the No. 230 U.S. Standard Sieve. The U.S. Standard sieves shall be in accordance with ASTM-E11.

3.3 Form and put-up. Types I, II, III, V, and VI buffing and polishing compounds shall be furnished in either stick or bar form. Type IV buffing and polishing compound shall be furnished in cake form.

3.3.1 Weight per unit. Each stick or bar of types I, II, III, V, and VI buffing and polishing compound shall have a minimum weight of 1 pound (454 grams) and a maximum weight of 3 pounds (1.36 kg). Each cake of type IV buffing and polishing compound shall weigh 3 ± 1/2 pounds (1.36 ±0.23 kg).

3.3.2 Stick or bar package. When furnished in stick or bar form, the buffing and polishing compound shall be encased in a paper carton which can be peeled to expose the compound for use.

3.4 Performance. The buffing and polishing compounds shall not be corrosive to the processed work and shall not be toxic or obnoxious to personnel. The deposit or binder residue which the buffing and polishing compounds leave on the processed work piece shall be removable with electroplaters cleaning compound conforming to SAE-AMS1547. Each type and grade shall produce the following results:

a. Type I polishing and buffing compound (rouge cake) shall produce a highly lustrous finish and color on gold, silver, brass, and gold and silver plated surfaces.

b. Type II polishing and buffing compound (lime cake) shall produce a highly lustrous finish free from cast or discoloration on copper, brass, nickel, and nickel alloy surfaces.

c. Type III (chrome cake)

(1) Type III, grade A buffing and polishing compound shall enable fast cutting and coloring, and satisfactory coloring work where shape or racking causes burned or gray spots on hard chromium plate, decorative chromium, steel, and stainless steel.

(2) Type III, grade B buffing and polishing compound shall produce a highly polished finish on hard chromium plate, decorative chromium, steel, and stainless steel.

d. Type IV (emery cake), type V (steel compound), and type VI (tripoli compound) buffing and polishing compounds shall enable satisfactory abrasive cutting and polishing of metals.

4. QUALITY ASSURANCE PROVISIONS.

4.1 Product conformance. The products provided shall meet the salient characteristics of this commercial item description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial market. The government reserves the right to require proof of such conformance.

4.2 Market acceptability. The item offered must have been sold to the government or commercial market.

4.3 Abrasive particle size (type IV only). The following procedure shall be performed. Weigh 50 grams of the sample and transfer to a 300 or 400 milliliter beaker. While stirring, add about 150 milliliters of acetone; let the mineral matter settle, and pour off the supernatant liquid. Repeat three or four times until the fat or grease has been completely extracted. Dry the mineral matter on a steam bath in a beaker. Weigh 20 grams of the mineral matter, secured as described above, and transfer to a nest of 200 and 230 mesh U.S. standard sieves and determine, by vibrating and oscillating the set, whether all of the material will pass through the 200 mesh sieve. If all of the material passes through the 200 mesh sieve, remove this sieve from the nest and wash the material remaining on the 230 mesh sieve under a stream of water. Dry, weigh, and determine the percentage by weight of material remaining on the 230 mesh sieve.

5. PACKAGING.

5.1 Preservation, packing, and marking. Preservation, packing, and marking shall be as specified in the contract or order.

6. NOTES.

6.1 Copies of SAE documents may be obtained from the Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

6.2 Copies ASTM documents may be obtained from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

6.3 Ordering Data. Procurement documents should specify the following:

a. Title, number, and date of this commercial item description.
b. Type, and if applicable, the grade of the buffing and polishing compound.
c. Quantity in pounds desired.
d. Levels of packaging and packing.

6.4 National Stock Numbers (NSNs). The following is a list of NSNs assigned which correspond to this CID. The list may not be indicative of all possible NSNs associated with the CID.

NSN	Type
5350-00-223-5581	I
5350-00-240-2212	I
5350-00-240-2213	I
5350-00-174-6474	III, Grade A
5350-00-193-7222	III, Grade A
5350-00-193-7225	III, Grade B
5350-00-191-9774	IV
5350-00-224-6686	IV

6.5 Part identification number (PIN). The PIN to be used for buffing and polishing compounds procured to this commercial item description is created as follows:

AA59297	-	X
CID number		Type designator, 1 = Type I 2 = Type II 3A = Type III, Grade A 3B = Type III, Grade B 4 = Type IV 5 = Type V 6 = Type VI

MILITARY INTERESTS:

Custodians:
Navy - AS
Air Force - 99

CIVIL AGENCY COORDINATING ACTIVITY:
GSA/FSS – 10FXE

Preparing activity:
Navy - AS
(Project 5350-0050)