

MIL-D-12468C  
12 March 1987  
 SUPERSEDING  
 MIL-D-12468B  
 4 January 1979

MILITARY SPECIFICATION  
 DECONTAMINATING AGENT, STB

This specification is approved for use by all  
 Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers one type of decontaminating agent.

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications and standards. The following specifications and standards form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation.

SPECIFICATIONS

FEDERAL

TT-C-490 - Cleaning Methods for Ferrous Surfaces and Pretreatments  
 for Organic Coatings  
 NNN-P-1475 - Paper, Filter, Analytical  
 PPP-P-704 - Pails, Metal: (Shipping, Steel 1 Through 12 Gallons)

MILITARY

MIL-C-22750 - Coating, Epoxy Polyamide  
 MIL-A-51027 - Antisetting Compound, Decontaminating Slurry, M2

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: Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, U.S. Army Chemical Research, Development and Engineering Center, ATTN: SMCCR-SPT-S, Aberdeen Proving Ground, MD 21010-5423 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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STANDARDS

FEDERAL

Fed. Std. No. 313 - Material Safety Data Sheets Preparation and the  
Submission Of

MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection by  
Attributes  
MIL-STD-129 - Marking for Shipment and Storage  
MIL-STD-147 - Palletized Unit Loads  
MIL-STD-171 - Finishing of Metal and Wood Surfaces

2.1.2 Other Government documents and publications. The following other Government documents and publications form a part of this specification to the extent specified herein. Unless otherwise specified, the issues shall be those in effect on the date of the solicitation.

CODE OF FEDERAL REGULATIONS (CFR)

49 CFR 171 to 179 - Department of Transportation Hazardous Materials  
Regulations

(The Code of Federal Regulations is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Orders for the above publication should cite "49 CFR 171 to 179".)

PUBLICATIONS

DEFENSE LOGISTICS AGENCY

TB 740-10/DLAM 4155.5 - Quality Control Depot Serviceability Standards,  
Appendix-G, General Supplies

(Storage serviceability standards for Decontaminating Agent, STB are contained in Appendix-G to TB 740-10/DLAM 4155.5. The proponent of Appendix-G is the Defense General Supply Center, Richmond, VA 23219.)

(Copies of specifications, standards, publications, and other Government documents required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted shall be those listed in the issue of the DODISS specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS shall be the issue of the non-government documents which is current on the date of the solicitation.

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## ASTM STANDARDS

- B 117 - Salt Spray (Fog) Testing
- D 1193 - Reagent Water (DOD Adopted)
- D 1654 - Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
- E 11 - Wire-Cloth Sieves for Testing Purposes (DOD Adopted)

(Application for copies should be addressed to ASTM, 1916 Race Street, Philadelphia, PA 19103.)

(Nongovernment standards and other publications are normally available from the organizations which prepare or which distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein (except for associated detail specifications, specification sheets or MS standards), the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

## 3. REQUIREMENTS

3.1 Material. Decontaminating Agent, STB shall be an intimate mixture of calcium oxide and bleaching powder (chlorinated lime). The bleaching powder shall have a maximum moisture content of 1.0 percent by weight. Calcium hypochlorite (high test hypochlorite) shall not be used as a substitute for the bleaching powder in the manufacture of Decontaminating Agent, STB (see 6.4).

3.2 Physical and chemical characteristics. Decontaminating Agent, STB shall conform to the physical and chemical characteristics of table I when tested as specified therein.

3.3 Bulk density. Decontaminating Agent, STB shall have a minimum bulk density of 0.8 gram (g) per milliliter (mL) when tested as specified in 4.2.4.5.

3.4 Setting characteristics. Decontaminating Agent, STB shall not set when tested as specified in 4.2.4.6.

3.5 Material Safety Data Sheets. Material Safety Data Sheets for Decontaminating Agent, STB shall be prepared and submitted by the contractor as specified in Fed. Std. No. 313 (see 6.8).

## 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified

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TABLE I. Physical and chemical characteristics

| Characteristic             | Percent by weight |         | Test paragraph |
|----------------------------|-------------------|---------|----------------|
|                            | Minimum           | Maximum |                |
| Available chlorine         | 28.0              | ---     | 4.2.4.1        |
| Water                      | ---               | 1.0     | 4.2.4.2        |
| Loss of available chlorine | ---               | 4.0     | 4.2.4.2        |
| Calcium oxide              | 3.0               | 6.6     | 4.2.4.2        |
| Iron (as ferric oxide)     | ---               | 0.2     | 4.2.4.3        |
| Particle size:             |                   |         |                |
| Through No. 14 sieve       | 98.0              | ---     | 4.2.4.4        |
| Through No. 30 sieve       | 60.0              | ---     | 4.2.4.4        |

in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

#### 4.2 Quality conformance inspection.

4.2.1 Lotting. A lot shall consist of the Decontaminating Agent, STB produced by one manufacturer in no more than 24 hours, at one plant, from the same materials, and under essentially the same manufacturing conditions provided the operation is continuous. In the event the process is a batch operation, each batch shall constitute a lot (see 6.3).

#### 4.2.2 Sampling.

4.2.2.1 For examination of packaging. Sampling shall be conducted in accordance with MIL-STD-105.

4.2.2.2 For Decontaminating Agent, STB test. See 6.6 for sampling and testing precautions. Sampling shall be conducted in accordance with table II. A representative specimen of approximately 0.45 kilogram shall be removed from each sample containers and placed in a suitable clean, dry container labeled to identify the lot and container labeled to identify the lot and container from which it was taken.

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TABLE II. Sampling for Decontaminating Agent, STB test

| <u>: Number of containers in batch or lot :</u> | <u>Number of sample containers :</u> |
|---|--------------------------------------|
| : 2 to 25                                       | : 2                                  |
| : 26 to 150                                     | : 3                                  |
| : 151 to 1,200                                  | : 5                                  |
| : 1,201 to 7,000                                | : 8                                  |
| : 7,001 to 20,000                               | : 10                                 |
| : 20,000 to 35,000                              | : 15                                 |
| : Over 35,000                                   | : 20                                 |
| :   | :                                    |

4.2.2.3 For container leakage test. Sampling shall be conducted in accordance with MIL-STD-105.

4.2.2.4 For salt spray corrosion resistance of empty, pretreated, primed (without top coat) and unmarked container. Two empty, pretreated, primed (without top coat) and unmarked containers shall be randomly selected from the lot of Decontaminating Agent, STB containers.

4.2.2.5 For adhesion of painted container. Two painted containers shall be randomly selected from the lot of Decontaminating Agent, STB containers.

#### 4.2.3 Inspection procedure.

4.2.3.1 For examination of packaging. The sample unit shall be one pail. Examinations shall be conducted prior to filling or after filling, as applicable. Sample containers shall be examined for the following defects using an AQL of 1.5 percent defective:

- (a) Contents per container not as specified
- (b) Container not as specified
- (c) Container closure not as specified
- (d) Container damaged or leaking
- (e) Marking incorrect, missing, or illegible
- (f) Exterior finish damaged or not as specified
- (g) Exterior of pail or cover contaminated with decontaminating agent
- (h) Palletization not as specified
- \*(i) Pail interior or underside of cover not dry
- \*(j) Foreign matter on pail interior or underside of cover
- \*(k) Pail interior coating missing, not as specified, or damaged
- \*(l) Pail interior seams not waxed

\*Examine prior to filling pail with decontaminating agent.

4.2.3.2 For Decontaminating Agent, STB test. Each sample specimen taken in 4.2.2.2 shall be tested as specified in 4.2.4. Failure of any test by any specimen shall be cause for rejection of the lot represented.

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4.2.3.3 For container leakage test. The sample unit shall be one filled and closed container. Sample containers selected in 4.2.2.3 shall be tested as specified in 4.2.5 using an AQL of 1.5 percent defective.

4.2.3.4 For salt spray corrosion resistance. The sample containers selected in 4.2.2.4 shall be tested as specified in 4.2.6. Failure of any container to meet the corrosion resistance requirements specified herein shall be cause for rejection of the lot of Decontaminating Agent, STB containers represented.

4.2.3.5 For adhesion. The sample containers selected in 4.2.2.5 shall be tested as specified in 4.2.7. Failure of any container to meet the paint adhesion requirements specified herein shall be cause for rejection of the lot of Decontaminating Agent, STB containers represented.

4.2.4 Tests. See 6.6 for sampling and testing precautions. Water in accordance with ASTM D 1193 and reagent grade chemicals shall be used throughout the tests. Where applicable, blank determinations shall be run and corrections applied where significant. Tests shall be conducted as follows:

4.2.4.1 Available chlorine. Place an approximate 5-g specimen in a porcelain mortar and grind with a pestle to obtain a uniform powder. Weigh out approximately 0.25 g of the uniform powder to the nearest milligram into a 250-mL Erlenmeyer flask. First add 25 mL of potassium iodide (KI) solution (made by dissolving 50 g of KI in 1 liter of water) and then add 10 mL of glacial acetic acid to the flask. Swirl until all solids have dissolved. Titrate the resulting solution with 0.1N sodium thiosulfate solution until the solution color is light yellow. Then add approximately 2 mL of starch solution and complete the titration with 0.1N sodium thiosulfate solution until the solution reaches the clear, colorless endpoint. Calculate the percent by weight available chlorine as follows:

$$\text{Percent available chlorine} = \frac{3.5453A}{W}$$

where: A = Total milliliters of sodium thiosulfate solution added to starch endpoint times the normality of the solution, and  
W = Weight of the specimen added to the flask in grams.

4.2.4.2 Sequential determination of water, loss of available chlorine, and calcium oxide. Weigh to the nearest milligram approximately 10 g of specimen into a 50-mL, low-form, preweighed weighing bottle with cover. Record the initial specimen weight (A). Place the weighing bottle with the cover removed in an oven at 100°C for 2 hours. Always replace the cover before removing the weighing bottle from the oven and allow to cool in a desiccator containing "Drierite" before each weighing. After cooling, weigh again and record the specimen weight after drying for 2 hours at 100°C (B). Remove 0.25 g of specimen weighed to the nearest milligram (C) and place it in a 250-mL Erlenmeyer flask. Determine the available chlorine (Y) by the procedure specified in 4.2.4.1. Place the weighing bottle containing (B - C) g of specimen in an oven

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at 100°C again, then raise the temperature of the oven slowly to 270° + 5°C and hold at that temperature for at least 1 hour. Cool in a covered desiccator and weigh. Continue heating at 270° + 5°C to constant weight and record the weight (D). Add 10 mL of freshly boiled distilled water to the specimen in the 50-mL weighing bottle and stir for at least 15 minutes with a glass rod fitted with a rubber policeman. (Inconsistent results will be obtained if the slurry is not thoroughly stirred and care is not taken to scrape the policeman clean on the edge of the bottle and to rinse the policeman with a small amount of water into the weighing bottle.) Evaporate the slurry to dryness in an oven set at 80°C. Transfer the bottle containing the dry slurry to a 270° + 5°C oven and place on an asbestos sheet or similar material in the oven to prevent the bottle from cracking. Dry to a constant weight and record the weight (E).

Calculate the percent by weight water as follows:

$$\text{Percent water} = \frac{100(A - B - Z)}{A}$$

Calculate the percent by weight loss of available chlorine as follows:

$$\text{Percent loss of available chlorine} = \frac{100(X - Y)}{X}$$

Calculate the percent by weight calcium oxide as follows:

$$\text{Percent calcium oxide} = \frac{311.1(E - D)}{B - C}$$

where: A = Weight of original specimen in grams,  
 B = Weight of specimen after drying at 100°C in grams,  
 C = Weight of 0.25 g of specimen removed for available chlorine analysis in grams,  
 D = Weight of dried specimen before slurring in grams,  
 E = Weight of dried specimen after slurring in grams,  
 X = Percent available chlorine determined on as-received specimen,  
 Y = Percent available chlorine after heating at 100°C, and  
 Z = A(X - Y)

#### 4.2.4.3 Iron.

(a) Indicator solution. Dissolve 0.32 g of barium diphenylamine sulfonate in 100 mL of water. Add 0.5 g of sodium sulfate, mix, and allow the barium sulfate to settle. Decant and use the clear solution as the indicator solution.

(b) Stannous chloride solution. Dissolve 60 g of stannous chloride in 60 mL of concentrated hydrochloric acid and dilute to 1 liter with water.

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(c) Procedure. Weigh to the nearest 0.01 g approximately 20 g of specimen into a 600-mL beaker. Cautiously add 50 mL of concentrated hydrochloric acid until effervescence ceases. Dilute to 250 mL with water and add 5 mL of concentrated nitric acid. Boil for 2 to 3 minutes. Precipitate the iron with concentrated ammonium hydroxide while the solution is still hot. If only a white precipitate of aluminum hydroxide is obtained, the ferric oxide present is negligible (less than 0.01 percent). If a reddish-brown precipitate is obtained, filter through filter paper conforming to type II, class 6 of WNN-P-1475 and wash the precipitate three times with hot water. Dissolve the precipitate in hot 1 to 4 hydrochloric acid and wash the filter paper three times with hot water. Heat the solution to boiling and reduce with the stannous chloride solution prepared in (b); then add five drops in excess and allow to cool. Add 25 mL of a saturated solution of mercuric chloride and 15 mL of a phosphoric-sulfuric acid mixture (150 mL concentrated sulfuric acid and 150 mL concentrated phosphoric acid per liter). Add five drops of the indicator solution prepared in (a) and titrate with 0.025N potassium dichromate solution to a purple end point. Calculate the percent by weight iron, as ferric oxide, as follows:

$$\text{Percent iron} = \frac{7.984AB}{W}$$

where: A = Milliliters of potassium dichromate used in the titration,  
 B = Normality of the potassium dichromate solution, and  
 W = Weight of specimen in grams.

4.2.4.4 Particle size. Use sieves conforming to ASTM E 11. Nest a No. 14 sieve in a No. 30 sieve and place a receiving pan at the bottom. Weight  $200 \pm 5$  g of the specimen into the top sieve, cover, and assemble in a mechanical shaker geared to produce  $300 \pm 15$  gyrations and  $150 \pm 10$  taps of the striker per minute. Vibrate the sieves for 5 minutes with the tapper in operation. Brush any residue remaining on the sieves with a camel's-hair brush until no appreciable quantity of material passes the sieves. Weigh and calculate the percent of specimen passing through each sieve.

4.2.4.5 Bulk density. Weigh approximately 40.0 g of the specimen, which has previously passed through a No. 14 sieve, into a 100-mL graduated cylinder from which the lip has been removed. Stopper the graduate and pass a closely fitting glass sleeve, approximately 76 millimeters (mm) long, over it. Clamp the sleeve to a ringstand. Place a large rubber stopper under the cylinder and adjust the sleeve so that the graduate will be 100 mm above the rubber stopper when the base of the graduate touches the lower edge of the sleeve. Raise the graduate until it touches the sleeve, then release. Continue raising and dropping the graduate until 100 cycles are completed. Read the volume of the sample and calculate the bulk density in grams per milliliter.

4.2.4.6 Setting characteristics. Place a solution of 0.25 g of citric acid in 75 mL of water in a 250-mL beaker, add 50 g of the specimen with constant stirring during a period of 2 minutes, then stir the mixture constantly for 5



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minutes to break up lumps and to insure as uniform a slurry as possible. Place a suitable thermometer in the mixture and place the beaker in an ice-water bath. Stir occasionally until the temperature of the slurry falls to 4°C or less. Hold the slurry below 4°C with occasional stirring for 15 minutes. The specimen shall be considered as failing the test if the slurry sets during any phase of the test (see 6.5).

4.2.5 Container leakage test. Place the filled and closed container on its side and roll it a distance equivalent to twice its circumference. Observe for leakage of contents.

4.2.6 Salt spray resistance. A straight scribe mark shall be made on containers as described in ASTM D 1654. The scribe shall not contact the edge of the specimen and must penetrate all coatings on the metal leaving a uniformly bright line free of burrs. For the purpose of this test, the significant surface on the container shall be an area of 60 degrees on either side of the scribe mark. This significant area shall be from top to bottom of containers including top and bottom chime seams and body seams. Procedures for evaluation shall be in accordance with ASTM D 1654. Expose the empty, closed, pre-treated, primed (without top coat) and unmarked container to a 5 percent salt spray test for 336 hours in accordance with ASTM B 117. Upon removal, wash the container in warm running water maintained at a temperature of not greater than 100°F. Wash until free of any visible salt deposits and examine immediately in accordance with methods 1 or 2 of ASTM D 1654. The mean creepage from scribe shall be as specified in 5.1.3.

4.2.7 Adhesion. The containers shall be tested for coating adhesion in accordance with adhesion (tape test) of MIL-C-22750 except the items to be tested shall be Decontaminating Agent, STB containers.

## 5. PACKAGING

### 5.1 Unit packing, level A.

5.1.1 Pail evaluation. Decontaminating Agent, STB shall be unit packed in a nominal 8-gallon capacity pail conforming to type III, class 8, with a bolted locking ring closure, of PPP-P-704 and Department of Transportation (DOT) Specification 5B. The pail shall be painted as specified in 5.1.2. The empty can interior and exterior shall have no oil, grease, dirt, scale, rust or any foreign matter and shall be dry.

5.1.2 Pail fill and finish preparation. The interior and exterior surface of the pail shall be cleaned in accordance with 4.2 of MIL-STD-171. The surfaces shall then be rinsed prior to the priming and finishing operation. The pails shall be given a pretreatment coating (finish 5.1.1 of MIL-STD-171) conforming to TT-C-490, type 1. The pail shall meet the finish requirements specified in 5.1.3 and 5.1.4. The container shall be examined just prior to priming and painting to assure that the previously cleaned and pretreated surface is dry and does not contain any oil, grease, scale, rust or foreign matter of any

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kind. The entire surface of the container shall then be painted in accordance with finish 20.24 of MIL-STD-171, color green 383. The primer coating and top coat shall have a thickness as specified in 5.1.5. The interior surface of the container shall have only the primer coat of finish 20.24 of MIL-STD-171 applied. Poor adhesion of paint shall be construed as evidence of improper cleaning. Paint touch-up is not permitted. The interior and exterior coating shall be intact and free of abraded or chipped areas. A quantity of 50.00 (+0.20, -0) pounds of Decontaminating Agent, STB shall be unit packed in each pail. Immediately after filling, any decontaminating agent on the top curl shall be completely removed. Following this, any decontaminating agent shall be completely removed from the exterior surface of the pail and cover. The filled pail shall not leak when tested in accordance with 4.2.5.

5.1.3 Salt spray corrosion resistance. The empty, cleaned, pretreated, primed (without top coat) and unmarked container shall have a mean creepage from the scribe of no more than 1.0 mm and shall show no evidence of rust or blisters on other concerned areas when tested as specified in 4.2.6.

5.1.4 Adhesion. The coating shall exhibit no removal from the container and the film shall show no blistering or other defects when tested as specified in 4.2.7.

5.1.5 Paint thickness. The primer coating shall have a thickness in the range of 0.8-1.4 mils and the top coat shall have a thickness in the range of 1.8-2.4 mils.

5.2 Palletization. Twelve pails of Decontaminating Agent, STB shall be palletized in accordance with the applicable requirements of MIL-STD-147 using load type III and blocking and bracing adequate to assure a stable and durable pallet load. The pails shall be arranged on the pallet in two layers. Each layer shall consist of two rows of three pails. Shrink or stretch wrap palletization shall not be used.

5.3 Marking. Each pail and pallet load shall be marked in accordance with MIL-STD-129 and DOT regulations. Pails shall be marked to show the date of manufacture, lot or batch number of the decontaminating agent, and the following information:

(a) Head and shell of pail. The head and shell of the pail shall be marked to show the following information:

Decontaminating Agent, STB  
 For storage in all climates.  
 Store in a dry place.  
 Inspect in accordance with TB 740-10/DIAM 4155.5 - Quality  
 Control Depot Serviceability Standards, Appendix-G -  
 General Supplies.  
 Clean bare spots and breaks in paint film and coat with  
 enamel conforming to TT-E-485.

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WARNING: HARMFUL IF INHALED OR SWALLOWED

Decontaminating Agent, STB contains calcium oxide and chlorinated lime. Exposure may cause irritation of the skin, eyes, nose, and throat. Skin burns may result from contact with this chemical. Protective mask or other respiratory protection devices should be worn when preparing slurry. Use face shield or safety goggles with rubber gloves to prevent prolonged contact. Keep away from combustibles. Do not store at high temperatures.

FIRE: Poisonous gases are produced when heated. Wear chemical protective suit including self-contained breathing apparatus.

FIRST AID: Remove contaminated clothing and shoes. Flush affected areas with plenty of water. If irritation persists, call doctor. If in eyes, hold eyelids open and flush with plenty of water. If ingested, give lots of water and call doctor. Do not give acidic antidotes. If victim is unconscious, do nothing except keep victim warm. Do not induce vomiting.

Corrosive Solid, NOS UN1759

(b) Shell of pail. The midsection of the shell shall be marked with the DOT corrosive label and to show the following information:

Mixing Instructions:

FOR BUCKET MIXTURE - Dissolve one measuring cup (3 ounces or 85 grams) of Antisetting Compound, M2 (MIL-A-51027) in 2-1/4 gallons (18 pounds or 8.2 kilograms) of water. Add three shovelfuls (18 pounds or 8.2 kilograms) of STB. Mix thoroughly. Apply with swab or broom.

FOR EARTH MIXTURE - Add two shovelfuls of STB to three shovelfuls of earth or sand. Mix thoroughly. Apply with shovel.

FOR POWER-DRIVEN DECONTAMINATING APPARATUS - Complete mixing directions are included in manual furnished with the apparatus.

(c) Base of pail. The base of the pail shall be marked, using 1/2 inch letters, with the following United Nations performance oriented packaging marking:

y 1A2/Z25/A/\*  
USA/DOD/AYE  
\*year packed

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## 6. NOTES

6.1 Intended use. Decontaminating Agent, STB is intended for use in destroying or converting certain chemical agents into harmless or less toxic compounds.

6.2 Ordering data. Acquisition documents should specify the title, number, and date of this specification.

6.3 Batch. A batch is defined as that quantity of material which has been manufactured by some unit chemical process or subjected to some physical mixing operation intended to make the final product substantially uniform.

6.4 Materials. Decontaminating Agent, STB which has been prepared by mixing approximately 6.6 percent by weight of calcium oxide with bleaching powder (also known as chlorinated lime, chloride or lime, or calx chloride) has been found to be satisfactory. The Decontaminating Agent, STB should not contain the salt  $\text{Ca}(\text{OCl})_2 \cdot 3\text{H}_2\text{O}$  as determined by an x-ray diffraction powder pattern of the Decontaminating Agent, STB. This method of preparing Decontaminating Agent, STB is furnished with the distinct understandings:

- (a) That the contractor is not required to follow this method,
- (b) That the requirements of this specification must be met regardless of the method of manufacture, and
- (c) That the Government makes no warranty that Decontaminating Agent, STB made in accordance with this method will meet the requirements of this specification.

6.5 Setting. For the purpose of this specification, setting is defined as thickening of the slurry sufficient to prevent flow. As the slurry is cooled, it will become more viscous but this effect should not be construed as setting so long as the slurry will flow when its container is inclined. The slurry will be considered as having set when its container may be inverted for 1 minute without loss of contents. The slurry should be stirred vigorously immediately before testing for ability to flow.

6.6 Sampling and testing precautions. Personnel sampling and testing Decontaminating Agent, STB should be adequately protected against the destructive effects of the material. Sampling should be performed as rapidly as possible to prevent the chemical changes which the material undergoes when exposed to the air.

6.7 Significant places. For the purpose of determining conformance with this specification, an observed or calculated value should be rounded off "to the nearest unit" in the last right-hand place of figures used in expressing the limiting value, in accordance with the rounding-off method of ASTM E 29.

6.8 Material Safety Data Sheets. Contracting officers will identify those activities requiring copies of completed Material Safety Data Sheets prepared in accordance with Fed. Std. No. 313. The pertinent mailing addresses for submission of data are listed in appendix B of Fed. Std. No. 313.

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6.9 Subject term (key word) listing.

Chemical agent  
Decontaminating agent

Custodians:

Army - EA  
Navy - SH  
Air Force - 68

Preparing activity:

Army - EA  
Project No. 6850-0835

Review activities:

Army - MD  
DLA - GS

## STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions - Reverse Side)

|   |  |   |  |
|---|--|---|--|
| 1. DOCUMENT NUMBER<br>MIL-D-12468C                            |  | 2. DOCUMENT TITLE<br>DECONTAMINATING AGENT, STB         |  |
| 3a. NAME OF SUBMITTING ORGANIZATION                           |  | 4. TYPE OF ORGANIZATION (Mark one)                      |  |
| b. ADDRESS (Street, City, State, ZIP Code)                    |  | <input type="checkbox"/> VENDOR                         |  |
|   |  | <input type="checkbox"/> USER                           |  |
| 5. PROBLEM AREAS  |  | <input type="checkbox"/> MANUFACTURER                   |  |
|   |  | <input type="checkbox"/> OTHER (Specify): _____         |  |
| a. Paragraph Number and Wording:                              |  |   |  |
| b. Recommended Wording:                                       |  |   |  |
| c. Reason/Rationale for Recommendation:                       |  |   |  |
| 6. REMARKS  |  |   |  |
| 7a. NAME OF SUBMITTER (Last, First, MI) - Optional            |  | b. WORK TELEPHONE NUMBER (Include Area Code) - Optional |  |
| c. MAILING ADDRESS (Street, City, State, ZIP Code) - Optional |  | 8. DATE OF SUBMISSION (YYMMDD)                          |  |