

[METRIC]
A-A-1452B
February 23, 1996
SUPERSEDING
A-A-1452A
May 8, 1981

COMMERCIAL ITEM DESCRIPTION
Lacquer (Spraying, Chemical Resistant)

The General Services Administration has authorized the use of this commercial item description in preference to Federal Specification TT-L 54C and authorizes its use by all federal agencies.

1.0 SCOPE. This description covers a one part, high gloss, air drying lacquer for aluminum surfaces in service around storage batteries, gasoline and lube oil exposures.

2.0 SALIENT CHARACTERISTICS.

2.1 Prohibited Materials. Shall not include chlorinated solvents, hydrolyzable chlorine derivatives, lead, mercury, chromate, any carcinogen as defined in the Code of Federal Regulations (CFR), Part 29, Section 1910.1200 and EPA Class I or II ozone depleting compounds.

2.2 Restricted Materials. To the maximum extent possible, the product should not contain the Environmental Protection Agency's (EPA) 17 restricted toxic chemicals listed in Appendix A.

2.3 Gloss. The minimum specular gloss shall be 70% at 60 degrees when tested in accordance with ASTM D 523-89, paragraphs 4.1.1 or 4.2.2.

2.4 Volatile Organic Content (VOC). The maximum allowable VOC (less water and exempt solvents) shall be 420 grams per liter, when tested in accordance with EPA Method 24, described in 40 CFR (Code of Federal Regulations), Part 60, July 1, 1995, or later method/amendment, if published.

2.5 Total solids (weight basis). Black: 25% minimum. White: 30% minimum (test both in accordance with ASTM D 2697).

2.6 Appearance. The lacquer shall spray to a smooth and uniform film which is free of surface defects.

2.7 Color.¹ In accordance with FED-STD-595B, the black lacquer shall be as dark or darker than color no. 17038; the white lacquer shall be as white or whiter than color no. 17875 determined visually in accordance with the standard practice in ASTM D 1729-88.

2.8 Drying time.¹ The product shall dry to touch in less than 10 minutes, dry hard within 60 minutes and have no "aftertack", after 48 hours, when tested in accordance with ASTM D 1640.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any other data which may improve this document should be sent to: General Services Administration, GSA Center (10FTE), Auburn, WA 98001-6599.

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2.9 **Knife test.**¹ The product shall form a ribbon or curl, and not flake or powder, and shall show beveled edges at a cut made with a sharp, curved blade, utility knife.

2.10 **Lifting.**¹ The lacquer shall not wrinkle or lift when exposed to drops of toluene covered with a watch glass for 5 minutes at 23 to 25°C.

2.11 **Flexibility.**² At 0°C and 25°C, the cured product shall bend 270 degrees over a 3.1-3.2 mm (0.125 inch) mandrel without cracking or flaking when tested in accordance with ASTM D 1737.

2.12 **Gasoline, oil and acid resistance.**¹ The product shall not wrinkle, lift or soften when immersed in unleaded gasoline (86-88 octane) for 4 hours, and to 3 drops of 10.6 normal sulfuric acid (specific gravity 1.300) covered with a watch glass for 24 hours, and to 3 drops of lubricating oil of the paraffinic/aliphatic type, as SAE No. 30 HD (detergent) motor oil, for 24 hours at 50° +/- 1°C, covered with a watch glass.

2.13 **Consistency.** The liquid product shall be free from skins, and gels and shall be dispersible by hand stirring to a smooth and homogenous mixture.

3.0 REGULATORY REQUIREMENTS.

3.1 **ASTM.** Use the latest method in effect on the date of the solicitation. ASTM standards are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

3.2 **Material Safety Data Sheets.** Material Safety Data Sheets (MSDS) shall be submitted in accordance with FED-STD-313.

3.3 **Contractor Certification.** The Contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this Commercial Item Description, and the product conforms to the producer's own drawings, specifications, standards, and quality assurance practices, and is the same product offered for sale in the commercial marketplace. The government reserves the right to require proof of such conformance prior to the first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

3.4 **Regulatory Requirements.** The manufacturer shall utilize recovered materials to the maximum extent possible. There shall be no lead, mercury, or hexavalent chromium used in the formulation of the paint. Maximum background lead content shall be 0.06% (600 parts per million), weight basis of dry film determined in accordance with ASTM D 3335.

4.0 **PRESERVATION, PACKAGING, PACKING, LABELING and MARKING.** The preservation packaging, labeling and marking shall be as specified in the contract or order.

5.0 **NOTES.** Procedures for the preparation of lacquer coatings for the above salient characteristics.

¹ Draw down the lacquer film thickness that will result in a dry film thickness of 0.025 +/- 0.0025 mm on solvent cleaned and buffed 24-gage aluminum or aluminum alloy sheets panels. Allow to dry at standard conditions, 25° +/- 1° C and 50% +/- 4% relative humidity, for 24 hours.

² Draw down the lacquer as per above procedure, allow to dry at standard conditions for 30 minutes, and then bake at 105° +/-2°C for 4 hours.

Military Custodians:

Army -MR.
Navy -SH
AF -99

Preparing activity

GSA-FSS

Coordinating activity:

Army -ME
AF -48

Appendix A

List of 17 Toxic Chemicals -EPA Targeted for Reduced Use
(“The 33/50 Program” is an EPA voluntary pollution prevention initiative)

To the maximum extent possible, manufacturers are encouraged to limit the use of the following list of targeted toxic chemicals in their product formulations. If applicable, a product label may state the product is free of the EPA list of 17 targeted toxic chemicals.

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| (1.) Benzene | (10.) Methyl Ethyl Ketone |
| (2.) Cadmium & compounds | (11.) Methyl isobutyl ketone |
| (3.) Carbon Tetrachloride | (12.) Nickel and compounds |
| (4.) Chloroform | (13.) Tetachloroethylene |
| (5.) Chromium & compounds | (14.) Toluene |
| (6.) Cyanide & compounds | (15.) 1,1,1 -trichloroethane |
| (7.) Lead & compounds | (16.) Trichloroethylene |
| (8.) Mercury & compounds | (17.) Xylenes |
| (9.) Methylene chloride | |