



## 2. APPLICABLE DOCUMENTS:

The following publications form a part of this specification to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order.

### 2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AMS 2825      Material Safety Data Sheets

ARP1755      Effect of Cleaning Agents on Aircraft Engine Materials, Stock Loss Test Method

### 2.2 ASTM Publications:

Available from ASTM, 1916 Race Street, Philadelphia, PA 19103-1187.

ASTM D 1568      Sampling and Chemical Analysis of Alkylbenzene Sulfonates

ASTM D 2667      Biodegradability of Alkylbenzene Sulfonates

ASTM F 945      Stress-Corrosion of Titanium Alloys by Aircraft Cleaning Materials

### 2.3 U.S. Government Publications:

Available from Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

MIL-STD-2073-1 DOD      Materiel, Procedures for Development and Application of Packaging Requirements

## 3. TECHNICAL REQUIREMENTS:

### 3.1 Composition:

Shall be optional with the manufacturer but, when prepared in accordance with manufacturer's instructions, shall form a liquid product, with no solid sediment at room temperature, meeting the applicable requirements of 3.2.

- 3.1.1 Compound containing volatile solvents shall be provided with an upper liquid seal to retard evaporation of solvent from the lower working layer. Solution make up, depth of seal if required, and solution control of the lower and seal phases shall be in accordance with manufacturer's instructions and purchaser's requirements.

### 3.2 Properties:

Compound shall conform to the following requirements; tests shall be performed in accordance with specified test methods on the product supplied at the maximum concentration and temperature recommended by the manufacturer; if a seal is specified, tests shall be performed on the lower liquid layer through the seal:

- 3.2.1 Stock Loss: Test panels of alloys or electrodeposits shall not incur stock loss exceeding 0.000025 inch (0.635  $\mu\text{m}$ ) per surface and plasma deposited coatings shall not incur stock loss exceeding 0.0001 inch (2.5  $\mu\text{m}$ ) when tested in accordance with ARP1755, Category 8. Where required in ARP1755, stock loss figures shall be reported. Vendor may indicate where remover is not recommended for particular alloys or surface coatings.
- 3.2.2 Pitting and Intergranular Attack: Test panels and bars used for the stock loss test of 3.2.1 shall neither exhibit pitting corrosion nor show visual evidence of degradation, when examined at 50X magnification under good oblique surface lighting conditions.
- 3.2.3 Biodegradability: Vendor shall supply evidence that surfactants used in the compound shall be at least 90% biodegradable, determined either in accordance with ASTM D 2667 where relevant to surfactant type or by alternative methods, appropriate to surfactant type, acceptable to purchaser.
  - 3.2.3.1 Evidence of surfactant biodegradability does not guarantee that the compound may be discharged in either concentrated or diluted form into public waterways or sewerage systems; manufacturers shall give advice on the means for disposal.
- 3.2.4 Storage Stability: Compound stored at 25 °C  $\pm$  5 (77 °F  $\pm$  9) for one year shall show no visual evidence of deterioration and shall meet all other technical requirements.
- 3.2.5 Stress-Corrosion of Titanium Alloys: Compound shall not cause corrosion of titanium alloys, (R) determined in accordance with ASTM F 945, Method A or Method B.
- 3.2.6 Performance: Remover, prepared and used in accordance with manufacturer's instructions, shall remove silicone rubber from parts. Remover which meets all other technical requirements shall be tested for silicone-rubber-removing performance in an approved engine overhaul facility for not less than six months, during which time at least ten turbofan or turbojet engines, or equivalent, shall be processed with satisfactory results before approval for service use is granted by the applicable engine manufacturer.

### 3.3 Quality:

The compound, as received by purchaser, shall be clear, homogeneous, and free from solid particles and separation and from foreign materials detrimental to usage of the compound.

#### 4. QUALITY ASSURANCE PROVISIONS:

##### 4.1 Responsibility for Inspection:

The vendor of the compound shall supply all samples for vendor's tests and shall be responsible for performing all required tests. Purchaser reserves the right to sample and to perform any confirmatory testing deemed necessary to ensure that the compound conforms to the requirements of this specification.

##### 4.2 Classification of Tests:

Tests for all technical requirements are preproduction tests and shall be performed prior to or on the initial shipment of compound to a purchaser, when a change in ingredients and/or processing requires reapproval as in 4.4.2, and when purchaser deems confirmatory testing to be required.

4.2.1 For direct U.S. Military procurement, substantiating test data and, when requested, preproduction test material shall be submitted to the cognizant agency as directed by the procuring activity, contracting officer, or request for procurement.

##### 4.3 Sampling and Testing:

(R)

Shall be in accordance with ASTM D 1568 or other method acceptable to purchaser. A lot shall be all compound produced in a single production run from the same batches of raw materials under the same fixed conditions and presented for vendor's inspection at one time. An inspection lot shall not exceed 6,000 gallons (22,712 L).

##### 4.4 Approval:

4.4.1 Compound shall be approved by purchaser before compound for production use is supplied, unless such approval be waived by purchaser. Results of tests on production compound shall be essentially equivalent to those on the approved sample compound.

4.4.1.1 A new or revised compound may be conditionally approved pending completion of the storage stability test of 3.2.4. Full approval will be granted following testing for the other technical requirements after completion of storage stability testing.

4.4.2 Vendor shall use ingredients, manufacturing procedures, and methods of inspection on production compound which are essentially the same as those used on the approved sample compound. If necessary to make any change in ingredients or in manufacturing procedures, vendor shall submit for reapproval a statement of the proposed changes in ingredients and/or processing and, when requested, sample compound. Production compound made by the revised procedure shall not be shipped prior to receipt of reapproval.