

MIL-T-6096A

14 AUGUST 1951

Superseding

MIL-T-6096

31 March 1950

MILITARY SPECIFICATION

THINNER; CELLULOSE ACETATE BUTYRATE DOPE

This specification was approved by the Departments of the Army, the Navy, and the Air Force for use of procurement services of the respective Departments.

1. SCOPE

1.1 This specification covers the requirements for one type and grade of thinner for use in thinning cellulose acetate butyrate dopes.

2. APPLICABLE SPECIFICATIONS

2.1 The following publications, of the issue in effect on date of invitation for bids, shall form a part of this specification to the extent specified herein:

2.1.1 Specifications.-Federal

O-A-393	Alcohol; Diacetone (Acetone-Free)
TT-B-838	Butyl Acetate, Normal (For Use in Organic Coatings)
TT-B-751	Ethyl Acetate (For Use in Organic Coatings)
TT-M-261	Methyl-Ethyl-Ketone (For Use in Organic Coatings)
TT-P-141	Paint, Varnish, Lacquer, and Related Materials; Methods of Inspection, Sampling, and Testing
TT-P-143	Paint, Varnish, Lacquer and Related Materials; General Specification for Packaging, Packing, and Marking

(Copies of this specification and copies of other publications referenced herein or required for Government procurement, and the Index of Military Aeronautical (AM or MIL) Standards, may be obtained upon application to the Commanding General, Air Materiel Command, Wright-Patterson Air Force Base, Dayton, Ohio; or the Commanding Officer, U. S. Naval Air Station, Johnsville, Pennsylvania.)

3. REQUIREMENTS

3.1 Materials.- Ingredient materials used in the manufacture of this product shall be of high quality, suitable for the purpose, and shall conform to applicable Government specifications as specified herein.

3.2 Composition.- The composition shall conform to the percentages by weight given in table I.

TABLE I
Composition

Ingredient	Percent by Weight
Ethyl Acetate (TT-B-751)	: 39.2 - 40.8
Butyl Acetate (TT-B-838)	: 14.7 - 15.3
Alcohol; Diacetone (O-A-393)	: 9.8 - 10.2
Methyl-Ethyl-Ketone (TT-M-261)	: 34.3 - 35.7

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- 3.3 Appearance.- The thinner shall be clear and free from suspended matter when examined by transmitted light.
- 3.4 Color.- The thinner shall be water white when compared to distilled water.
- 3.5 Odor.- The odor shall be characteristic and not noticeable after drying from filter paper.
- 3.6 Spot Test.- The thinner shall show complete evaporation from filter paper without leaving a stain or oily spot.
- 3.7 Specific Gravity (Wt/Gal).- At 20°/20°C (68°/68°F) the specific gravity shall be between 0.856 and 0.866 (7.13 and 7.21 lb/gal).
- 3.8 Acidity.- The acidity shall not exceed 0.03 percent by weight as acetic acid; the thinner shall be free from mineral acids.
- 3.9 Nonvolatile.- The nonvolatile content shall not exceed 13 mg per 100 ml.
- 3.10 Copper Corrosion.- The thinner shall not blacken or corrode clean metallic copper when subjected to the test specified in Specification TT-P-141.
- 3.11 Workmanship.- The component ingredients shall be intimately assembled and processed in accordance with the best practice for high-quality aircraft finishing materials which are stable and not subject to abnormal change with age in sealed containers.

4. SAMPLING, INSPECTION, AND TEST PROCEDURES

- 4.1 General.- All the tests required for the testing of thinner are classified as inspection tests, for which necessary sampling techniques and methods of testing are specified in this Section. The contractor shall furnish test reports showing quantitative results for all tests required by this specification, and signed by an authorized representative of the contractor or laboratory, as applicable. Acceptance or approval of ingredient materials during course of manufacture shall in no case be construed as a guaranty of the acceptance of the finished product.
- 4.1.1 Batch Data.- The manufacturer shall submit on a typewritten sheet a complete extraction of data from his batch production card or cards, indicating to which batch or batches each record applies. These data shall be submitted in the units of weight or volume measure as used on the card and employed by the plant, and shall include a statement of the theoretical yield of the batch. Where volumetric measures are used in production, the corresponding percentage weights shall also be shown.
- 4.2 Sampling Instructions.- Inspection test samples shall be selected as required by Specification TT-P-141. In addition, 1 pint of each ingredient used in the batch being sampled shall be forwarded with the sample. Samples originating at points east of the Continental Divide shall be forwarded to the Supply Officer, Naval Air Material Center, Philadelphia 12, Pennsylvania, Attention: Superintendent, Aeronautical Materials Laboratory. Samples originating at points west of the Continental Divide shall be forwarded to the Industrial Test Laboratory, Mare Island, Naval Shipyard, Vallejo, California.
- 4.3 Sampling Tests.- Samples submitted for acceptance under contract shall be subjected to all the tests of this specification in accordance with Specification TT-P-141. The right is reserved to perform any additional tests to determine conformance with the compositional requirements of table I.
- 4.4 Rejection and Retest.- Thinner which has been rejected may be reworked or replaced to correct the defects, and resubmitted for acceptance. Before resubmitting, full particulars concerning previous rejection and the action taken to correct the defects found in the original shall be furnished the Inspector. Material rejected after retest shall not be resubmitted without specific approval of the Procuring Service.

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5. PREPARATION FOR DELIVERY

5.1 Application.- The packaging, packing, and marking requirements specified herein apply only to direct purchases by or direct shipments to the Government.

5.2 Packaging, Packing, and Marking.- Packaging, packing, and marking for shipment shall be in accordance with Specification TT-P-143. In addition, containers shall not act on or be acted upon by the material contained therein while in storage for a period of 1 year.

6. NOTES

6.1 Superseding Data.- This specification supersedes Military Specification MIL-T-6096, which was the number assigned by Cover Sheet to Specification AN-T-27.

6.2 Ordering Data.- The material shall be purchased by volume, the unit being a U. S. gallon at 25°C (77°F). The volume shall be determined by dividing the net weight in pounds by the weight per gallon. Requisitions, contracts, and orders should state quantity required, the size of the container in which the thinner is to be furnished, and whether overseas packing is desired.

NOTICE: When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

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