

O-S-801C
AMENDMENT 3
April 17, 1990
SUPERSEDING
AMENDMENT 2
September 21, 1987

FEDERAL SPECIFICATION

SULFURIC ACID, ELECTROLYTE; FOR STORAGE BATTERIES

This amendment, which forms a part of O-S-801C, dated October 20, 1978, is approved by the Commissioner of Federal Supply Service, General Services Administration, for use by all Federal agencies.

PAGE 1

Delete HH-I-585 from the list of Federal specifications.

PAGE 3

Delete MIL-STD-1188 from the list of military standards and add the following:

“MIL-STD-1190 - Minimum Guidelines for Level C Preservation, Packing and Marking”

Add the following to the list of ASTM Standards:

“ASTM C 516 - Vermiculite Loose Fill Thermal Insulation
ASTM D 3951 - Commercial Packaging”

Comments or suggestions pertaining to this specification should be addressed to:
Commander, U.S. Army Chemical Research, Development and Engineering Center,
ATTN: SMCCR-PET-S, Aberdeen Proving Ground, MD 21010-5423

FSC 6810

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

Add the following publication:

“United Nations

Recommendations on the Transport of Dangerous Goods

(Application for copies should be addressed to United Nations, Sales Section, New York, NY or Geneva, Switzerland.)”

PAGE 9

4.2.4.7, line 7: Delete the equation for percent fixed residue and substitute the following:

$$\text{“Percent fixed residue} = \frac{100A}{BC}\text{”}$$

PAGE 11

4.2.4.12, line 13: Delete the equation for percent zinc and substitute the following:

$$\text{“Percent zinc} = \frac{100A}{BC}\text{”}$$

PAGE 15

4.2.5, line 1: Delete “Tests shall be conducted as follows:” and substitute “Containers shall be tested in accordance with chapter 9.7 of UN Recommendations and as follows:”

5.1.1.1, line 3: After “glass” add “or polyethylene”

5.1.1.1, line 4: After “The” add “glass”.

5.1.1.1, line 6: After “186.” add “The polyethylene bottle shall conform to group A, class 2, style 1, grade 2, closure A, seal A of PPP-C-186.”

PAGE 16

5.1.1.2(a), line 3: Delete “glass”.

5.1.1.2(a), line 8: Delete "type IV, class 1 of HH-I-585" and substitute "type I, grade 3 of ASTM C 516".

5.1.1.2(b), line 4: Delete "conforming to DOT specification 2U."

5.1.1.2(b), lines 5 and 6: Delete lines in their entirety and substitute "to type I, class B of PPP-C-569. Each bottle shall be furnished with a".

PAGE 17

5.1.3.2, line 2: Delete "MIL-STD-1188" and substitute "ASTM D 3951 and DOT regulations."

PAGES 17 AND 18

5.2.1.2, 5.2.1.2(a), and 5.2.1.2(b): Delete paragraphs in their entirety and substitute the following:

"5.2.1.2 One-gal quantity, classes 1, 2, 3, and 4 sulfuric acid. Four 1-gal containers of sulfuric acid packaged as specified in 5.1.1.2(a) or 5.1.1.2(b) shall be packed upright in a wood box as specified in 5.2.1.1."

PAGE 18

5.2.1.3, line 1: Delete "class 2" and substitute "classes 2 and 3".

5.2.1.3, line 2: Delete "class 2" and substitute "class 2 or 3".

PAGE 19

5.2.2.2(a), lines 4 and 5: Delete "type domestic, style A, B, or I, grade B of PPP-B-601 or class 1, style optional of PPP-B-585." and substitute "class W/WVR, grade V13c, style RSC of PPP-B-636."

5.2.2.3, line 1: Delete "class 2" and substitute "classes 2 and 3".

5.2.2.3, line 2: Delete "class 2" and substitute "class 2 or 3".

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PAGE 20

5.2.3.2, line 2: Delete "MIL-STD-1188" and substitute "MIL-STD-1190 and DOT regulations."

5.3, line 1: Delete "Marking." and substitute "Marking. Inner, outer, and single packaging containers shall be marked in accordance with chapter 9.5 of UN Recommendations."

5.3.2, line 3: Delete "MIL-STD-1188" and substitute "MIL-STD-1190 and DOT regulations."

PAGE 21

5.3.3, line 6: Add the word "then" between "for eyes," and "get medical attention."

5.4: Delete paragraph in its entirety and substitute the following:

5.4 Palletization. Like packs of sulfuric acid shall be palletized upright together.

5.4.1 Levels A and B. Level A and B packs shall be palletized in accordance with the applicable requirements of MIL-STD-147 as follows: specified containers shall be palletized using the wood cap and inverted wood cap (storage aid 5), side framing (storage aid 10) with a minimum of three vertical struts per side and end framing (storage aid 12) of MIL-STD-147. The pallet shall conform to new, unused, seasoned hardwood, type IV of NN-P-71. The caps and frames shall be fastened together in such a manner that there is a half-inch space between the top of the load and the nearest member of the top cap. Pallet loads shall not exceed four tiers in height. Pallet loads shall be secured using metal strapping in accordance with metallic strapping requirements of MIL-STD-147 as bonding means L (tie-down straps, secondary) and M (tie-down straps, auxiliary).

5.4.2 Level C. Level C packs for military activities shall be palletized in accordance with the policies established in MIL-STD-1190. Level C packs for civil agencies shall be palletized to assure safe delivery to the first destination. Excess shipping containers which do not constitute a full pallet course and have a combined gross weight of 200 pounds or more shall be prepared for shipment in a manner which will assure transport of the containers in a unitized state from the initial source to the ultimate destination. The containers shall be consolidated in such a manner that will enable the load to be moved by forklift or other mechanical means. Excess shipping containers which do not constitute a full pallet course and have a combined gross weight of 199 pounds or less may be shipped as individual containers."

MILITARY INTERESTS:

Custodians:

Army - EA
Navy - SH
Air Force - 68

Review activities:

Army - MD, MI
Navy - YD
DLA - GS

User activities:

Navy - MC, SA

CIVIL AGENCY COORDINATING ACTIVITIES:

EPA
GSA-FSS (9FTE-10)

Preparing activity:

Army - EA

Project No. 6810-1190