

[NOT MEASUREMENT
SENSITIVE]

A-A-52557

January 2, 1996

SUPERSEDING

VV-F-800

13 July 1994

COMMERCIAL ITEM DESCRIPTION

FUEL OIL, DIESEL, FOR POSTS, CAMPS AND STATIONS

The General Services Administration has authorized the use of this commercial item description (CID), for all federal agencies

1 SCOPE This CID covers requirements for two grades of low sulfur diesel fuel oils suitable for use in ground compression-ignition and gas turbine engines and other diesel fuel consuming equipment The two grades of fuel are not suitable for aircraft engines

2 CLASSIFICATIONS The diesel fuel oil shall be of two grade designations as follows

2 1 Grade

2 1 1 Grade Low Sulfur No 1-D A special-purpose, light distillate fuel used for automotive diesel and gas turbine engines requiring low sulfur fuel and requiring a higher volatility than that provided by Grade Low Sulfur No 2-D

2 1 2 Grade Low Sulfur No 2-D A general purpose, middle distillate fuel used for automotive diesel and gas turbine engines requiring low sulfur fuel It is also suitable for use in non-automotive application, especially in conditions of variable speed and load

Beneficial comments, recommendations, additions, deletions, clarifications, etc and any data which may improve this document should be sent to U S Army Tank-automotive and Armaments Command, ATTN AMSTA-TR-E/BLUE, Warren, MI 48397-5000
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AMSC N/A

FSC 9140

DISTRIBUTION STATEMENT A Approved for public release, distribution is unlimited

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3. SALIENT CHARACTERISTICS.

3.1 **Material.** The fuel shall be composed of petroleum hydrocarbon fractions meeting the requirements of ASTM D975 except as noted below.

3.2 **Legal requirements.** Fuel furnished under this description must meet all applicable legal requirements in accordance with the Code of Federal Regulations.

3.3 **Fuel stabilizer additive.** A fuel stabilizer additive/biocide conforming to MIL-S-53021 shall be blended into the fuel to improve the suitability of fuels for intermediate (6-18 months) and long-term periods (18-25 months) of storage by preventing fuel deterioration and microbiological growth. Fuel stored under warm or tropical conditions is especially susceptible to degradation. The additive is not intended for routine use, but only when the conditions favorable to fuel degradation are expected to be encountered. Additive concentrations are given in the latest revision of QPL-53021.

3.4 **Corrosion inhibitor/lubricity improver.** A corrosion inhibitor/lubricity improver conforming to MIL-I-25017 shall be blended into the fuel to inhibit corrosion. Additive concentration limits are given in the latest revision of QPL-25017. If MIL-I-25017 is used as a lubricating improver then up to 250 parts per million (ppm) may be added to the fuel.

3.5 **Fuel system icing inhibitor.** Fuel system icing inhibitor conforming to MIL-I-85470 shall be blended into the fuel to purge small quantities of water from the fuel system and to prevent the formation of ice crystals. The additive concentration shall not exceed 0.15 volume percent when tested in accordance with FED-STD-791, methods 5327, 5330, 5340, or 5342.

3.6 **Performance requirements.**

3.6.1 **Physical and chemical requirements.** The diesel fuel oil shall meet the physical and chemical requirements of ASTM D975, with the exception that the maximum cloud point (see 7.2) shall be equal to or lower than the tenth percentile minimum ambient temperature for the area in which ambient temperatures for U.S. locations are shown in Appendix X2 of ASTM D975. This is 6°C (10.8°F) below the maximum limit recommended by ASTM D975.

3.6.2 **Particulates.** Total particulate level as measured by ASTM D5452 shall not exceed 10 mg/L.

4. REGULATORY REQUIREMENTS.

4.1 Clean Air Act requirements. Under authority of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) issues limits on the maximum sulfur level, the maximum aromatic content or minimum cetane index on diesel intended for on-road use. Details of the EPA regulations and test methods are given in Part 80 of Title 40 of the Code of Federal Regulations (40 CFR 80). Some states, notably California, have more restrictive aromatic content limits. Specifics may be obtained by contacting the Air Quality Office of the state environmental office or headquarters.

4.2 Dye. The Internal Revenue Service (IRS) requires that a red dye, identified as Solvent Red 164 (alkyl derivatives of azo benzene azo naphthol), must be added to all non-taxable diesel fuel as a means of identification. The minimum concentration is provided in 40 CFR part 80.

5. QUALITY ASSURANCE PROVISIONS.

5.1 Contractor certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this CID and that the product conforms to the producer's own drawings, specifications, workmanship standards, and quality assurance practices. Items with known defects shall not be submitted for Government acceptance. 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.

6. PACKAGING. Diesel fuel oil will generally be produced in bulk unless called for in packaged lot quantities (see 7.2). Preservation, packing, and marking shall be as specified in the contract order (see 7.2).

7. NOTES.

(This section contains information of a general or explanatory nature that may be helpful but is not mandatory.)

7.1 Addresses for obtaining copies of referenced documents.

7.1.1 Government documents. Copies of 40 CFR part 80 are available from the Superintendent of Documents, Government Printing Office, Washington, DC 20402. Copies of FED-STD-791, MIL-I-25017, MIL-S-53021, QPL-25017, QPL-53021, and MIL-I-85470 are available from the Defense Printing Service Detachment Office, Standardization Order Desk, 700 Robbins Avenue, Bldg. 4D (Customer Service), Philadelphia, PA 19111-5094.

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7.2 Acquisition data Acquisition documents must specify the following

- a Title, number, and date of this CID
- b Issue of DODISS to be cited in the solicitation
- c Grade of diesel fuel oil required
- d Cloud point required
- e Quantity of diesel fuel oil in terms of gallons or barrels bulk or number and size of containers for packaged lots
- f Selection of applicable level and packaging requirements

7.3 Cross-referenced data Diesel Fuel Oils conforming to this CID are interchangeable/substitutable with Diesel Fuel Oils conforming to VV-F-800

MILITARY INTERESTS

Custodians

- Army - AT
- Navy - SH
- Air Force - 68

Review Activities

- Army - MI, AR
- Navy - SA, YD1, MC, EC
- Air Force - 11
- DLA - PS

CIVIL AGENCY COORDINATION ACTIVITIES

- GSA/FSS - FCAE, 9FTE - 10
- HHS - FEC, NIH
- DOT - NHT

- Preparing Activity
- Army - AT

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