

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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OIL, CARBURETOR FLUSHING

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. **TYPE:** Refined petroleum base lubricating oil without additive compounds not naturally occurring in petroleum.
3. **APPLICATION:** Preservation of the interior of carburetors, particularly the diaphragms, during shipment and/or storage.
4. **TECHNICAL REQUIREMENTS:**

- 4.1 **Properties:** Oil shall conform to the following requirements; tests shall be performed in accordance with listed ASTM methods, or such modifications and specific methods as detailed herein:

Property	Value	Test Method
Viscosity, Saybolt Universal at 210 F, sec	62-68	ASTM D88-44 or D445-46T
Flash Point, deg Fahr, min	420	ASTM D92-46
Pour Point, deg Fahr, max	0	ASTM D97-47
Sulfur, %, max	0.5	ASTM D129-50
Aniline Point, deg Fahr, min	230	ASTM D611-47T
Saponification Number, max	0.5	4.1.1
Reaction	Neutral	4.1.2
Corrosion, Copper Strip at 212 F	No brown or black discoloration or pitting.	4.1.3

- 4.1.1 **Saponification Number:** Shall be determined in accordance with ASTM D94-48T, using a 20-gram sample, except that 0.1N alcoholic potassium hydroxide solution shall be used instead of 0.5N solution.
- 4.1.2 **Reaction:** Fifty ml of oil and 15 ml of distilled water shall be placed in a 150-ml flask. The flask and contents shall be warmed to 150 F, shaken thoroughly and allowed to cool to room temperature. Five ml of the aqueous layer shall be pipetted into each of two test tubes. One drop of 0.1% solution of methyl orange shall be added to one tube and one drop of 1% solution of phenolphthalein added to the other. No red or pink color shall result in either case.
- 4.1.3 **Corrosion:** This test shall be performed in accordance with ASTM D130-50T, except that the medium shall be oil instead of gasoline and the temperature shall be 212 F instead of 122 F.

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