



WINDSHIELD WASHER FLUID, ISOPROPANOL ALCOHOL, PRE-DILUTED, INITIAL FILL

WSS-M8B19-A1

1. SCOPE

The material defined by this specification is an Isopropanol Alcohol based solution containing surfactants and other additives for improved cleaning efficiency and freeze point depression.

See requirements in Table 1 for freeze point temperature by region.

2. APPLICATION

The diluted material is intended for locations that lack equipment to dilute the concentrate, have poor water quality, or chose to avoid mixing altogether. The dilution ratio is established to meet the freeze point requirement for the market where the vehicle is sold.

3. REQUIREMENTS

3.1 APPROVED SOURCES

This specification requires the use of approved sources. Only the sources identified on the Ford Approved Source List (ASL) can be used when this specification is listed on the drawing, CAD file, or other documents. The list of approved sources is located within Ford at www.mats.ford.com or available externally through a Ford Materials Engineer.

3.2 CONDITIONING AND TEST CONDITIONS

All test values are based on material conditioned for not less than 24 h prior to testing in a controlled environment of 23 +/- 2 °C and 50 +/- 5% relative humidity. Testing of the material should occur in the conditioning environment or soon after removal.

3.3 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

3.3.1 In addition to the control plan, the supplier and affected Material Engineering activity shall establish mutually agreed upon frequency of testing for the ongoing product verification plan and include in Supplement A.

3.4 APPROVAL INFORMATION

This specification was released to allow this material to be purchased by Ford Purchasing for use in a Ford facility. The specification number is also the part number in WERS. Post production uses a different format for WERS

The freezing point of pre-diluted initial fill must be clearly marked on all deliveries.

3.5 PERFORMANCE REQUIREMENTS

Materials being evaluated for initial approval must meet WSS-M14P19-A or latest revisions.

Date	Action	Revisions	Rev. 0
2017 11 14	Released		



Documents

S. Gould, EU

Document Sharing Hub



3.6 COLOR
(Visual) Clear blue
or as agreed to by
The Ford facility

3.7 SPECIFIC GRAVITY AT 15.6 °C
(ASTM D891) Report

Specific Gravity is dependent on temperature and supplier's concentration/composition. Since multiple suppliers will be approved to this specification, refer to the Ford Approved Source List or supplier's MSDS or certificate of analysis. Typical specific gravity is 0.925 kg/L for the pre-diluted material.

3.8 FREEZE POINT OF DILUTED WINDSHIELD WASHER FLUID
(GOST 28084)

North America Market (FNA)	Less than
South America Market (FSAO)	-30°C
Europe (FoE) Market	0°C
Asia Pacific and Africa Market (APA)	-20°C
China Market	0°C
Russian Market	-40°C
	-30°C

4. GENERAL INFORMATION

The information given below is provided for clarification and assistance in meeting the requirements of these specifications. Contact gmfs@ford.com for questions concerning Engineering Material Specifications. Windshield washer fluid (WWF) has the following typical properties.

4.1 WSS-M8B19-A1 ANALYTICAL TESTING

4.1.1 Non-Volatiles,
(ASTM D1353) <450 mg/100mL

4.1.2 Viscosity
(ASTM D445)

4.1.2.1 At 25 °C 3.4 – 3.9 mm²/s

4.1.2.2 At - 17.8 °C 34.0 – 42.0 mm²/s

4.1.3 Chemical Composition of pre-dilute

<u>Component</u>	<u>% by Weight</u>
Water	> 43.0
Isopropyl Alcohol	> 46.0
Mono Ethylene Glycol	> 6.0
Detergent/Surfactants	< 5
Alkalinity Source	< 2
Rust Preventative Source	< 2
Stable, Identifying Dye	Trace

4.1.4 pH 8.0 – 10.0
(ASTM E70)