



SOAP, LIQUID TYPE, TIRE MOUNTING LUBRICANT

WSS-M1B6-B2

1. SCOPE

The material defined by this specification is a ready-to-use liquid soap of uniform composition.

2. APPLICATION

This specification was released originally for material used as a lubricant for mounting tires.

3. REQUIREMENTS

3.1 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.2 COLOR Colorless to Yellow

3.3 pH 8.0 – 8.5
(ASTM E 70)

3.4 TOTAL SOLIDS 9.8 - 10.5 %
(ASTM D 460, Method A)

3.5 POTASSIUM HYDROXIDE 0.001 – 0.050 %
(Henkel Test Method 572801, or equivalent titration method)

3.6 SPECIFIC GRAVITY 1.002 – 1.012
(ASTM D 891, Method A or B)

3.7 FOAM Pass
(Henkel Test Method 512801, or equivalent test method)

4. GENERAL INFORMATION

This information given below is provided for clarification and assistance in meeting the requirements of this specification. Contact gmfs@ford.com for questions concerning Engineering Material Specifications.

4.1 SURFACE TENSION 26 – 29 dynes/cm (mN/m)
(ASTM D 1331)

4.2 EFFECT ON NATURAL RUBBER, Volume Change -1.0% to +1.0%
(ASTM D4289, except 23°C)

4.3 VISCOSITY 7 – 11 seconds
(ASTM D 1200, Ford #4 cup, 23°C)

Date	Action	Revisions	Rev 02
2017 02 28	Editorial	See Summary of Revisions	C. Taylor, NA
2012 04 11	Revised	See Summary of Revisions	C. Mracna
2005 02 15	Activated		G. Stevens



4.4 CORROSION

No pitting, etching or visible corrosion on the surface of steel, brass and aluminum.

Test Method

Clean 25 mm x 76 mm strips of metals to be tested. Strips shall be immersed one each in a 100 mL test tube containing 15 mL of lubricant test sample. The test tube shall be lightly stoppered with a cork stopper, supported in a beaker, then place in an oven at 70°C for 70 h. The strips shall be examined under magnification of 20X for evidence of corrosion.

4.5 EVAPORATION, Dry Time

30 – 90 minutes

After dipping a rubber test slab in the uncut solution, it shall be held vertical for 10 minutes, then placed horizontal for the remainder of the test. It shall retain a water wet surface, and after 30 minutes remain readily transferable (without rubbing) to a blotter or standard paper hand towel. The untouched portion of the panel shall retain all its lubricity as the evaporation proceeds for the next 30 minutes. After 90 minutes the material shall be dry, that is, completely non-transferable to a blotter or standard paper hand towel when placed in contact with the material without rubbing.

4.6 WETTING

Shall be applied from a spray nozzle positioned from 100 mm to 150 mm away from the panel and provide a fully wet surface. The panel shall be held vertical for 10 minutes and then placed horizontally for 20 minutes. At the end of this time, the panel shall exhibit the retention of lubricant and exhibit no voids or dry spots.

4.7 FREEZE-THAW STABILITY

Using a closed glass vessel, a sample of the uncut material shall be frozen over a 24 h period to complete solidification. The sample shall then be removed to a 23 °C environment and allowed to thaw without any physical agitation. Upon complete thawing, the material shall exhibit no evidence of separation or precipitation.

5. SUMMARY OF REVISIONS

2017 02 28	Editorial – Correct Method to allow either A or B in section 3.6. Removed Method C which doesn't exist
2012 04 11	Aligned requirements to the supplier Certificate of Analysis. Moved all other requirements to General Information