

MATERIALS/ CHEMICALS

FNHA-2-K-010.00

ANTI-FREEZE, WINDSHIELD WASHER

1. SCOPE

1.1 The material defined by this specification is a mixture of alcohols and some detergents. The purpose of this fluid is to depress the freezing point of water in the windshield washer system.

1.2 This specification may involve hazardous materials, procedures and apparatus. This specification does not address the health and safety problems associated with its application or use. It is the specification user's responsibility to follow appropriate health or safety practices and determine the application or regulatory limitation before use.

2. APPLICATION

This specification was released originally for material used as an antifreeze in the fill of windshield washer systems.

3. DESIGNATION

The Engineering drawing shall contain the notation taken from Table 4 for the specification of the specific windshield washer solution. It shall appear as seen in Figure 1.

ITEM	QUANTITY	UNIT	PART NUMBER	NAME
1	XX	LT	86509117	WASH STD 86508523
SINGLE SECTION				
EUROPEAN MATERIAL				
AMERICAN MATERIAL				
THE FOLLOWING TOLERANCES APPLY UNLESS OTHERWISE SPECIFIED				
90° = 90° ± 2° MACHINED SURFACE FINISH = 6.3/ EXCEPT DRILLED HOLES				
POSITION TOLERANCES AND RELATED DATUMS, APPLY MMVC. OTHER GEOMETRIC TOLERANCES, APPLY REF. COMMERCIAL TOLERANCES APPLY TO SECTION DIMENSIONS OF RAW MATERIALS				
D. N.V.				

Figure 1

4. RELATED STANDARDS

ASTM D1298 - Test Method For Density, Relative Density (Specific Gravity), or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method.
86507636(FNHA-2-J-001.01) - Test Panel Procedures

5. REQUIREMENTS

Physical requirements are listed in Table 1. The dilution ratio verses the freezing temperature is listed in Table 2.

5.1 EFFECT ON PAINT

The solution shall show no adverse effects, such as staining, discoloration or loss of gloss on painted surfaces.

Test Method:

A test panel shall be prepared with an approved paint which will meet Test panel requirements 86507636 (FNHA-2-J-001.01). Two series of shall be performed.

Test A - Concentrated solution

Test B - 1:1 mixture with water

Method:

1) Using a medicine eye dropper apply a small quantity of the fluid to each panel held in a horizontal position.

2) Allow fluid to remain on panels for 4 hours at 23 +/- 2°C.

					STD WINDSHIELD WASH		
					 NEW HOLLAND		ENGINEERING SPECIFICATION
					THE INFORMATION HEREON IS THE CONFIDENTIAL AND PROPRIETARY PROPERTY OF NEW HOLLAND NORTH AMERICA, INC. AND/OR NEW HOLLAND CANADA, LTD. ANY USE, EXCEPT THAT FOR WHICH IT MAY BE LOANED, IS PROHIBITED.		FRAME 1 OF 3
							PART NUMBER
							86508523
ALL	C	RLF	110255	JUL 97			
ALL	B	RE	104739	940216			
FRAME NO.	REV	BY	ECN NO.	DATE			
APP.	DRAWN		I. EKIS	SEPT 93			
KHH FEB 94	CHECKED						

MATERIALS/ CHEMICALS**FNHA-2-K-010.00**

3) Wash panels with a mild detergent, rinse thoroughly and dry with a soft cloth.

4) Evaluate.

6. APPROVAL OF MATERIALS

Materials defined by this specification must have prior approval by the responsible Materials Engineering Activity. Suppliers desiring approval of their materials shall first obtain an expression of interest from the effected Purchasing, Design or Materials Engineering Activity. Upon request, the Supplier shall submit to the affected Materials Engineering Activity its own Laboratory report to the specification (test results, not nominal values), the material designation and code number, and test specimens for Ford New Holland Inc. evaluation. Upon approval, the material will be added to the Engineering Materials Approved Source List.

7. SUPPLIER'S RESPONSIBILITY

7.1 Supplier shall be responsible for the maintenances of the product's physical properties

and chemical analysis. This specific data shall be related to any product and/or batch code numbers and date identification codes. All data obtained shall be held by the supplier for a minimum of five (5) years. The information shall be made available to Ford New Holland upon request by Materials Engineering or by Ford New Holland Supplier Quality Assistance Personnel.

7.2 All materials supplied to this specification shall be equivalent in all characteristics to the material upon which approval was originally granted. Prior to the making of any changes in the properties, composition, construction, color, dimensions, processing or labeling of the material originally approved under this specification, the supplier shall notify Purchasing and the affected Materials Engineering activity of the proposed changes and obtain the written acknowledgement of the Material Engineering activity. Test data, test samples and a new identification code are to be submitted with the request.

Table 1 - Physical Properties		
Test Type	Standard	Requirement
Chemical		Methanol
Specific Gravity	ASTM D 1298	0.8 - 0.86
PH		9.0 - 10.0 @ 1%
Odor		Non-ObjectionableMethanol Odor
Color	Diluted with water	Clear Blue

Table 2 - Dilution of Concentrate			
TEMPERATURE (Freeze Point)		RATIO	
°C	°F	WATER	CONCENTRATE
-20	-4	70	30
-25	-13	60	40
-30	-22	55	45
-35	-31	50	50
-40	-40	45	55
-45	-49	40	60

	NAME			PART NUMBER		
	STD WINDSHIELD WASH ENGINEERING SPECIFICATION			REV.	FRAME	OF
			C	2	3	