Tentative Bulletin

PRICE - UNDER $ 1.00 / GAL

MCS 1289

A Heat Transfer Fluid Candidate
for Replacement of Therminol FR
Lo-Temp [redacted]
[redacted] - Use Range of -20 to 400°F.

"Nothing contained herein is to be construed as a recommendation to use any product in conflict with any patent. MONSANTO MAKES NO WARRANTIES AS TO THE FITNESS OR MERCHANTABILITY OF ANY PRODUCT REFERRED TO. no guarantee of satisfactory results from reliance upon contained information or recommendations, and disclaims all liability for any resulting loss or damage."

Monsanto Industrial Chemical Co.
Specialty Products

TOWOLDMON0037015

Typical Properties of MCS 1289

Composition	Modified Ester Base
Appearance	Clear Yellow Liquid
Odor	Faint
Pour Point	-65°F
Flash Point	405°F
Fire Point	438°F
Autoignition Temperature (AIT)	705°F
Specific Gravity at 75°F	.919
Density, lbs/gal. at 75°F	7.63
Viscosity, cs	
-65°F	6490
0°F	125
100°F	8.85
200°F	2.70
300°F	1.30
400°F	.85
Vapor Pressure	
420°F	10 mm Hg
572°F	180 mm Hg
610°F	590 mm Hg
Specific Gravity	
-60°F	.976
-20°F	.958
75°F	.919
200°F	.864
300°F	.825
400°F	.785
Specific Heat	
212°F	approx. .56 BTU/#°F

TOWOLDMON0037016

MCS 1289 is intended for use as a heat transfer fluid where low ambient temperatures cause pumping problems with existing heat transfer fluids. The normal use range for MCS 1289 will be -25°F to 400°F bulk temperature maximum with an upper limit on film temperature of 450°F. For long term use we suggest a maximum bulk temperature of 375°F in a non-pressurized system; however, we do suggest a light inert gas blanket or cold seal for the expansion tank vent to preclude air contact at temperatures over 150°F.

MCS 1289 is not a fire resistant fluid. Although normal use temperature is below its flash and fire point we suggest that suitable precautions be taken to minimize the risk of fire.

Preliminary toxicity studies indicate that MCS 1289 should require no special handling precautions nor should it present an environmental hazard. Continuing studies are under way to prepare more complete toxicity data.

MCS 1289 has been tested in an N & C (nitrogen and corrosion) test for 168 hours at 450°F with metal coupons to check metal compatibility. The tests indicate no abnormal metal attack, carbon formation or fluid property change.

Heat transfer fluids are intended for indirect heating purposes only. Under no circumstances should heat transfer fluids contact or in any way contaminate food, animal feed, food products, food packaging materials, pharmaceuticals or any food related items. Any contact may contaminate these items to the extent their destruction may be required.

0585440

TOWOLDMON0037017