



TECHNICAL DATA SHEET

MULTIPLUS® ENCLOSED GEAR OIL

Whitmore's Multiplus® Enclosed Gear Oils are extreme pressure lubricants formulated to meet the exacting demands of most types of automotive differentials and transmissions including heavy-duty off-road fleets.

Multiplus® is designed to perform under adverse conditions such as: heavily loaded gears, shock loading, and frequent reversing action. All Multiplus® products meet the performance requirements of extreme pressure lubricants of the American Gear Manufacturer's Association (AGMA) Specification 9005-D94 "Lubrication of Industrial Enclosed Gearing."

Multiplus® lubricants meet or exceed the following specifications for the respective viscosity grades:

U.S. Steel Spec 224	Rockwell D-76 (A,B,C,D,F)
GL-4 & GL-5	GM Spec 9985044
MIL-L-2105E	GM Spec 9985182
John Deere J11D	Chrysler MS 9020
Navistar (IHC) Grades 81 HR, 90HR, 135 HEP	CS 3000 B
Ford EST-M2C-108-C	MT-1
Mack GO-J	

BENEFITS:

- **REDUCES WEAR** - protects against scoring, scuffing and galling to increase gear and bearing life.
- **VERSATILE** - may be used in a variety of equipment and mixed fleets. Reduces inventory.
- **ANTI-FOAM** - protects seals and keeps operating temperatures low by breaking up entrapped air bubbles as they form.
- **RAPID DEMULSIFICATION** - separates easily from water. Multiplus® does not lose lubricity due to emulsified water.

APPLICATIONS:

Multiplus® is designed primarily for automotive differentials and transmissions. Multiplus® may be used in severe service over-the-road and off-road applications. It may also be used in industrial gearboxes, oiled bearings, and couplings. Suitable for service-fill on equipment requiring a lubricant with Limited Slip characteristics.

ASTM #	SAE Grade	TYPICAL CHARACTERISTICS	
		80W-90	85W-140
D-445	Kinematic Viscosity		
	cSt @ 40°C	220	380
	cSt @ 100°C	19	30
D-2161	Saybolt Viscosity		
	SUS @ 100°F	1,012	2,020
	SUS @ 210°F	100	150
D-2270	Viscosity Index	119	111
D-97	Pour Point, °F (°C)	-20 (-29)	0 (-18)
Gardner	Density, lb/gal @ 60°F (°C)	7.45	7.55
Method	Specific Gravity, g/cc @ 60°F (°C)	0.894	0.906
D-92	Flash Point, °F (°C) Cleveland Open Cup	400 (204)	400 (204)
D-2782	Timken OK Load, lb	55	60
D-2783	Four Ball EP		
	Weld Point, kg	400	400
	Load Wear Index	50	50
D-4172	Four Ball Wear		
	Scar Width, mm @ 40 kgf	0.33	0.35
D-665	Rust Test	Pass	Pass
D-130	Copper Strip Corrosion	1B	1B
	212°F (100°C) @ 3 hr		
D-2711	Color	Red	Red
	Demulsibility: Modified for 90 ml Water	Pass*	Pass*

* Applies to U.S. Steel Specification Number 224.

The above are average values. Minor variations which do not affect product performance are to be expected in normal manufacturing.

PACKAGING

Shuttle Tanks	Nonreturnable Totes	Drums	Kegs	Pails	Jugs 4 per case
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THE WHITMORE MANUFACTURING COMPANY

930 Whitmore Drive • P.O. Box 9300 • Rockwall, Texas 75087 • USA • (972) 771-1000 • Fax: (972) 722-2108

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Performance Under Pressure Since 1893

LIMITED WARRANTY: The Whitmore Manufacturing Company makes the Limited Express Warranty that at the date of delivery, its goods shall be free from defects in Whitmore's materials and workmanship and shall meet the express written statements of quality, if any, made by Whitmore in connection with the sale of the goods. Other than such Limited Express Warranty, there are no express warranties made with respect to the sale of goods and all implied warranties existing under the law are expressly disclaimed and negated, particularly, Whitmore NEGATES AND DISCLAIMS THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. All other liability, either in contract or tort, including without limitation, strict liability found in Section 402A of the Restatement of Torts or otherwise, is negated and disclaimed. The sole remedy for Whitmore's breach of such Limited Express Warranty shall be a refund of the purchase price of its goods, and Whitmore shall have no responsibility for incidental or consequential damages sustained as a result of the use of the goods, whether sustained to the goods themselves or to other property. Data listed are subject to usual manufacturing variations.