



# Product Bulletin

## GULF EP LUBRICANTS JMS

**Gulf EP Lubricants JMS** are emulsifiable EP (extreme pressure) industrial gear oils specially formulated to meet the performance requirements of Joy Technologies' specifications for transmission oils. They are formulated with high viscosity index *PENN-GRADE™* paraffinic base oils and a superior sulfur-phosphorous EP additive system.

### FEATURES AND BENEFITS:

**Gulf EP Lubricants JMS** offer excellent emulsibility by forming stable emulsions when exposed to water. Their effective emulsibility, combined with a metal deactivator additive, helps prevent rust and corrosion of both ferrous and non-ferrous metals. The EP additive system provides high film-strength characteristics to protect gear teeth from wear and premature failure. They offer outstanding thermal and oxidative stability to protect against severe operating conditions such as intermittent shock loads, high peak loads, and heavy tooth loads. These EP Industrial Gear Lubricants provide the following benefits:

- Excellent performance in the presence of water
- Low pour points for enhanced low temperature performance
- Rust and corrosion protection
- Superior resistance to oxidation
- Outstanding anti-foam protection
- High film strength for a thick film on gearbox components

### APPLICATIONS:

**Gulf EP Lubricants JMS** are designed specifically to meet the performance requirements of Joy Technologies' specifications for transmission oils: TO-HEP (ISO 320) and TO-HD (ISO 460). They are recommended for use in gear boxes that are subject to heavy loading and water contamination. Typical applications include mining equipment, heavy duty off-road construction equipment, and severe industrial applications. They can be used anywhere a water-emulsifiable, extreme-pressure industrial gear lubricant is specified.

### SELECTION:

**Gulf EP Lubricants JMS** are available in ISO viscosity grades (ISO VG) – **320** and **460**. Follow equipment manufacturer recommendations for appropriate viscosity grade.



**AMERICAN REFINING GROUP, INC.**

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**AVAILABILITY:**

**Gulf EP Lubricants JMS** are available throughout Gulf's marketing area. Your Gulf representative or Gulf jobber can provide specific information. Need additional information? Call Gulf @ 1-800-566-GULF (4853).

**Gulf EP Lubricants JMS - Typical Properties**

<b>ISO Viscosity Grade</b>		<b>320</b>	<b>460</b>
AGMA Grade		6 EP	7 EP
Product Code	<b>Test Method</b>	343845	343846
Viscosity, cSt @ 40°C	ASTM D-445	320	460
Viscosity, cSt @ 100°C	ASTM D-445	25.4	33.0
Viscosity, SUS @ 100°F	ASTM D-2161	1,800	2,300
Viscosity, SUS @ 210°F	ASTM D-2161	125	160
Viscosity Index	ASTM D-2270	103	103
Color	ASTM D-1500	L 8.0	L 8.0
Pour Point, °F (°C) (max)	ASTM D-5949	0 (-18)	0 (-18)
Flash Point, COC, °F (°C)	ASTM D-92	450 (232)	460 (238)
Karl Fischer Moisture, ppm, max	ASTM D-6304	500	100
Water Separability: 40 mL OIL + 4 mL WATER, 30 MIN. @ 180°F	ASTM D-1401	0mL (max)	0mL (max)
Sulfur Content, mass %	ASTM D-4294	0.482	0.484
API Gravity, 60°F	ASTM D-1298A	27.1	26.7
Density, lbs/gal (g/L)	Calculated	7.43 (890)	7.45 (893)
Joy Transmission Spec.		TO-HEP	TO-HD