



## Mobil Rarus™ PE R 220

Mobil Industrial , Switzerland

Ethylene compressor oil

### Product Description

Mobil Rarus™ PE R 220 is a premium ethylene compressor oil of ISO viscosity grade 220. It is a polymer thickened, food-grade white oil based lubricant used for the lubrication of ethylene hyper compressors.

In the production of polyethylene, high-speed reciprocating compressors are used to compress ethylene gas to high pressures up to 3000bar. In these applications, the compressor lubricant can come in contact with the polyethylene in the polymerization process. Under these circumstances, the lubricating oil required must be of acceptable purity and be known not to modify the properties of the polyethylene.

Mobil Rarus PE R 220 provides good lubrication of the compressor cylinders and is compatible with the polyethylene process. It can be used to produce polyethylene where food contact can occur such as in food packaging. Mobil Rarus PE R 220 offers good thermal and chemical stability.

### Features and Benefits

Mobil Rarus PE R 220 is specifically engineered to help provide long and trouble-free compressor performance. Mobil Rarus PE R 220 is NSF H1 registered and meets the requirements for lubricants with potential for incidental food contact (FDA 21 CFR 178.3570) and processing aids used in the production of olefin polymers compliant with FDA 21 CFR Title 21 ch.1 177.1520.

Mobil Rarus PE R 220 compressor oil offers the following benefits:

- Suitable for applications where it can come in contact with food
- High purity levels so that it will not modify properties of polyethylene
- Excellent cylinder lubricant helping to prolong compressor life
- Good thermal and chemical stability resulting in lower deposits and longer oil life

Features	Advantages and Potential Benefits
High neutrality and low reactivity components	Do not interfere with catalytic polymerization reactions
High purity components	Do not induce any discolouration or odor in the final polymer
Components approved for food contact	Suitable for the manufacture of polymers for food packaging
Low polarity	Suitable in the manufacture of polymers for electrical insulation and thin bags (plastic bags)
Premium quality product	Reduced maintenance shutdowns

### Applications

Mobil Rarus PE R 220 has the following applications

- High pressure ethylene compressors
- Compressors used in the production of polyethylene used in food contact applications

### Specifications and Approvals

**This product is registered to the requirements of:**

NSF H1

**This product meets or exceeds the requirements of:**

FDA 21 CFR 178.3570

Burckhardt VSB 1001180

**Properties and Specifications**

Property	
Grade	ISO VG 220
Acid Number, mgKOH/g, ASTM D974	0.05
Density @ 15 C, kg/l, ASTM D4052	871
Flash Point, Cleveland Open Cup, °C, ASTM D92	210
Kinematic Viscosity @ 40 C, mm <sup>2</sup> /s, ASTM D445	227
Pour Point, °C, ASTM D97	- 12 max
Saybolt Color, ASTM D156	+ 27 min
Water Content, mg/kg, ASTM D6304	50

**Health and safety**

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ <http://www.msds.exxonmobil.com/psims/psims.aspx>

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