

# Shell MADRELA® Oil GP

## *Synthetic lubricant for gas compressors*

Shell MADRELA® Oil GP has been specially developed for cylinder lubrication of reciprocating compressors handling natural gas at high pressure. It is based on polyglycol base fluids and offers significant benefits over mineral oil based products, especially in gas re-injection compressor applications.

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### Performance Features and Benefits

- **Reduced hydrocarbon gas solubility**  
Developed specifically to provide reduced gas solubility. This results in reduced viscosity loss in comparison with mineral oil-based products, improving piston ring and packing lubrication. Service intervals can be extended, reducing maintenance and downtime costs.
- **Reduced feed rate**  
The improved lubrication allows a reduction in cylinder feed rates, reducing lubricant consumption and costs.
- **Lubricant film retention**  
The reduced viscosity loss also results in retention of a stronger lubricant film on the cylinder wall, piston rings and packing components. Corrosion protection is increased and wear rates further reduced.
- **No effect on well formation**  
In gas re-injection applications, Shell MADRELA® Oil GP present as carryover in the re-injected gas, is compatible with well bore treatment chemicals and resists deposit formation and well impairment caused by plugging of the well strata.

### Main Applications

- **Gas re-injection compressors**  
Recommended for cylinder lubrication of reciprocating compressors used for oilfield gas re-injection at pressures of up to 400 bar.
- **LPG and LNG vehicle fueling**  
Suitable for use in compressors handling natural and petroleum gas for vehicle fueling applications.
- **Reciprocating gas compressors handling hydrocarbon and other gases**  
Shell MADRELA® Oil GP may also be used for compression of hydrocarbon process gases, carbon dioxide, hydrogen, helium and nitrogen.

Special changeover procedures are required when moving from mineral oil-based products to Shell MADRELA® Oil GP and vice versa.

Advice on applications not covered in this handbook may be obtained from your Shell representative.

### Compatibility and Miscibility

#### Seal compatibility

Shell MADRELA® Oil GP may be used with most common seal and packing materials. However, leather seals are not recommended for use with polyglycol-based lubricants, as the natural fats tend to be removed causing seal shrinkage and hardening.

### Handling and Safety Information

For information on the safe handling, storage, or use of this product, refer to its Material Safety Data Sheet at <http://www.epc.shell.com/>. If you are a Shell Distributor, please call 1+800-332-6457 for all of your service needs. All other customers please call 1+800-237-8645 for all of your service needs.

### Protect the Environment

Do not discharge into drains, soil, or water.

## Typical Physical Characteristics

<b>Shell MADRELA® Oil GP</b>			<b>100</b>
<b>Kinematic Viscosity</b>		ISO 3104	
	@ 40°C	cSt	84
	@ 100°C	cSt	16.8
<b>Viscosity Index</b>		ISO 2909	217
<b>Flash Point COC</b>		°F	ISO 2592
			536
<b>Pour Point</b>		°F	ISO 3016
			-67
<b>Density at 15°C</b>		kg/L	ISO 12185
			1.042

*These characteristics are typical of current production. While future production will conform to Shell specifications, variation in these characteristics may occur.*