Technical Data Sheet

Formerly Known As: **Shell Madrela GS**

Shell **Gas Compressor Oil *S4 RN 68***

- *Extra Performance*
- *Hydrocarbon Applications*

Advanced Synthetic Gas Compressor Oil

Shell Gas Compressor Oil S4 RN has been specially developed for lubrication of rotary screw compressors handling natural gas and other gases at low pressure. It is based on polyglycol base fluids and offers significant benefits over mineral oil-based products.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **Extended maintenance intervals**
  Shell Gas Compressor Oil S4 RN has reduced hydrocarbon gas solubility which results in reduced viscosity loss (or increased viscosity retention) in comparison to mineral oil based products which can help provide extended service intervals and reduced maintenance costs.
- **Outstanding wear protection**
  The low hydrocarbon gas solubility and associated low viscosity loss also results in retention of a stronger lubricant film on the screws. This ensures excellent sealing, and helps deliver low levels of corrosion and wear.
- **Maintaining system efficiency**
  The low hydrocarbon gas solubility and associated low viscosity loss ensure excellent sealing between the two rotors at the point of mesh. Excellent lubrication of the rotor shaft bearings is also maintained.

Main Applications

- **Rotary screw gas compressors**
  Shell Gas Compressor Oil S4 RN is suitable for shaft and rotor lubrication of rotary screw compressors used for low pressure compression of natural gas.
- **LPG bottling**
  Shell Gas Compressor Oil S4 RN is suitable for use in rotary screw compressors used for bottling LPG up to 40 bar pressure.
- **LPG and LNG vehicle fuelling**
  Suitable for use in compressors handling natural and petroleum gas for vehicle fueling applications.
- **Multiple gas transportation vessels**
  Shell Gas Compressor Oil S4 RN is suitable for compressing a wide variety of hydrocarbon gases. When used in marine cargo compressors, there is no need to change lubricant with a change in gas being transported

Specifications, Approvals & Recommendations

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk.

Compatibility & Miscibility

- **Seal Compatibility**
  Shell Gas Compressor Oil S4 RN may be used with most common seal and packing materials, including butyl, nitrile, neoprene and Viton seal materials.
- **Change-over Procedure**
  Shell Gas Compressor Oil S4 RN contains polyalkylene glycols and is not compatible with mineral oils or most other synthetic lubricant types. Care should be taken when changing from such products to Shell Gas Compressor Oil S4 RN.

Typical Physical Characteristics

Properties	Method	Gas Comp Oil S4 RN 68

Properties			Method	Gas Comp Oil S4 RN 68
Kinematic Viscosity	@40°C	mm^2/s	ISO 3104	78
Kinematic Viscosity	@100°C	mm^2/s	ISO 3104	14.4
Viscosity Index			ISO 2909	>200
Flash Point (COC)		°C	ASTM D92	>220
Pour Point		°C	ISO 3016	-42
Density	@15°C	kg/m^3	ISO 12185	1050

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

Health, Safety & Environment

- **Health and Safety**

  Shell Gas Compressor Oil S4 RN is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

  Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

  Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from http://www.epc.shell.com/

- **Protect the Environment**

  Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Additional Information

- **Advice**

  Advice on applications not covered here may be obtained from your Shell representative.