



Formerly Known As: Shell Clavus Oil S

# Shell Refrigeration Oil S2 FR-A 68

- Reliable Performance
- Compatible with NH3

## Refrigerator Compressor Lubricant

Shell Refrigeration Oil S2 FR-A is a low miscibility compressor lubricant intended for use in refrigeration compressors using Ammonia refrigerant. It is formulated from specially refined paraffinic base oils in combination with additives selected to minimise system deposits and provide long service life.

### DESIGNED TO MEET CHALLENGES

#### Performance, Features & Benefits

##### • System efficiency

Shell Refrigeration Oil S2 FR-A has been specially optimised for use in systems where oil separation is required. It has been designed to reduce "light end" oil carryover; this minimises oil thickening in the compressor and reduces oil coating of internal evaporator surfaces thus maintaining overall system efficiency.

##### • Extended maintenance intervals

Shell Refrigeration Oil S2 FR-A has excellent high temperature and oxidation stability providing long service life even where high compressor discharge temperatures are found.

In addition it is formulated to provide excellent control of deposit and sludge formation resulting in extended oil drain intervals in comparison with conventional mineral oil based refrigerator oils.

#### Main Applications



##### • Refrigerator compressors

Shell Refrigeration Oil S2 FR-A is recommended for use in open, semi-open and hermetic compressors in domestic, commercial and industrial refrigeration systems. It can be used in both rotary and reciprocating compressor types.

#### Typical Physical Characteristics

Properties	Method	Shell Refrigeration Oil S2 FR-A 68
ISO Viscosity Grade	ISO 3448	68
Refrigerator Oil	DIN 51503	KAA, KE

Properties			Method	Shell Refrigeration Oil S2 FR-A 68
<b>Kinematic Viscosity</b>	@40°C	mm <sup>2</sup> /s	ASTM D445	68
<b>Kinematic Viscosity</b>	@100°C	mm <sup>2</sup> /s	ASTM D445	9
<b>Flash Point (COC)</b>	°C		ISO 2592	232
<b>Pour Point</b>	°C		ISO 3016	-39
<b>Density</b>	@15°C	kg/m <sup>3</sup>	ISO 12185	862
<b>Neutralisation Number</b>		mg KOH/g	ASTM D664 (TAN)	0.01
<b>Miscibility with R290</b>				Completely miscible with hydrocarbon based refrigerants

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 Refrigeration Oil S2 FR-A 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 Safety Data Sheet, which can be obtained from  
<https://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.