

## SAPPHIRE® Hi-Power Oils

Hydraulic, airline and compressor oils ISO VG 22, 32, 46, 68, 100

### Product Overview

ROCOL® SAPPHIRE Hi-Power oils are high performance, combined, hydraulic, airline and compressor oils designed for most types of air compressors and hydraulic systems.

SAPPHIRE Hi-Power oils are highly thermally stable and are designed to give superior service life. The incorporated LCO (Low Carry Over) system ensures maximum compressor efficiency.

### Features and Benefits

- SAPPHIRE Hi-Power oils have a wide operating temperature range from -20°C to +120°C.
- Special antioxidant combination gives high thermal stability for longer fluid life with lower deposit, sludge and varnish formation.
- The unique Low Carry Over (LCO) system of SAPPHIRE Hi-Power oils are designed to provide optimum compressor performance.
- SAPPHIRE Hi-Power oils have excellent anti-wear properties to give reduced wear and longer machine life.
- Outstanding corrosion resistance protects equipment from water damage.
- SAPPHIRE Hi-Power oils (typically 22/32/46) are ideal for use in pneumatic oil lubricator bottles.
- Low foaming formula provides more efficient lubrication.
- SAPPHIRE Hi-Power oils have good filterability and are zinc free..
- SAPPHIRE Hi-Power oils contain a blue dye to help identify any problematic leaks.

### Directions for Storage and Use

- Product should be stored unopened in the original container.
- Storage temperature should be between 1°C and 40°C.
- If stored in accordance with the above guidelines, shelf life is 3 years from date of manufacture.
- For optimum performance drain and flush the unit prior to filling with SAPPHIRE Hi-Power.
- Compatible with mineral oil and polyalphaolefin (PAO) based oils.

### Specifications

- US Steel 127, 136
- Cincinatti Machine P-68, P-69, P-70
- DIN 51506
- DIN 51524 (parts 1 and 2)
- Dennison HF-0, HF-1, HF-2
- Vickers M-2950-S, I-286-S

### Pack Sizes

Viscosity Grade	20L	200L
22	52525	52529
32	52545	52549
46	52555	52559
68	52565	52569
100	52575	52579

## SAPPHIRE® Hi-Power Oils

Hydraulic and compressor oils ISO VG 22, 32, 46, 68, 100

Property	Test Method	Result
Appearance	Visual	Blue liquid
Base Type	N/A	Severely refined mineral oil

Property	Test Method	SAPPHIRE Hi-Power				
		22	32	46	68	100
<b>Kinematic Viscosity:</b>						
<b>cSt @ 40°C</b>	<b>IP 71</b>	<b>22</b>	<b>32</b>	<b>46</b>	<b>68</b>	<b>100</b>
<b>cSt @ 100°C</b>	<b>IP 71</b>	<b>4.6</b>	<b>5.8</b>	<b>6.7</b>	<b>9.3</b>	<b>11.9</b>
<b>Viscosity Index</b>	<b>ASTM D2270</b>	<b>127</b>	<b>125</b>	<b>104</b>	<b>112</b>	<b>110</b>
<b>Density (g/cm<sup>3</sup>)</b>	<b>N/A</b>	<b>0.86</b>	<b>0.86</b>	<b>0.87</b>	<b>0.87</b>	<b>0.87</b>
<b>Pour Point (°C)</b>	<b>ASTM D5950</b>	<b>-9</b>	<b>-9</b>	<b>-9</b>	<b>-9</b>	<b>-9</b>
<b>Flash Point (°C) COC</b>	<b>ASTM D93</b>	<b>190</b>	<b>204</b>	<b>210</b>	<b>220</b>	<b>228</b>
<b>Copper Corrosion</b>	<b>IP 112 - ASTM D130</b>	<b>1a</b>	<b>1a</b>	<b>1a</b>	<b>1a</b>	<b>1a</b>
<b>Rust Protection</b>	<b>ASTM D665</b>	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>
<b>Oxidation Test Hours</b>	<b>DIN 51587</b>	<b>&gt;3500</b>	<b>&gt;3500</b>	<b>&gt;3500</b>	<b>&gt;3500</b>	<b>&gt;3500</b>

Values quoted above are typical and do not constitute a specification.

### Safety Data Sheets

Safety data sheets are available for download from our website [www.rocol.com](http://www.rocol.com) or may be obtained from your usual ROCOL contact.

The information in this publication is based on our experience and reports from customers. There are many factors outside our control or knowledge which affect the use and performance of our products, for which reason it is given without responsibility.

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BS EN ISO 9001  
 Certificate No. FM 12448



BS EN ISO 14001  
 Certificate No. EMS 67596



OHSAS 18001  
 Certificate No. OHS 78173



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 IN PEOPLE



**SAFETY DATA SHEET**  
SAPPHIRE HI-POWER RANGE

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**Section 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

**Product name:** SAPPHIRE HI-POWER RANGE

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Use of substance / mixture:** Hydraulic and Compressor Oil

**1.3. Details of the supplier of the safety data sheet**

**Company name:** ROCOL

ROCOL House

Swillington

Leeds

West Yorkshire

LS26 8BS

ENGLAND

**Tel:** +44 (0) 113 232 2700

**Fax:** +44 (0) 113 232 2740

**Email:** [customer-service@rocol.com](mailto:customer-service@rocol.com)

**1.4. Emergency telephone number**

**Emergency tel:** +44 (0) 113 232 2600

**Section 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification under CHIP:** This product has no classification under CHIP.

**2.2. Label elements**

**Label elements under CHIP:**

**Hazard symbols:** No significant hazard.

**2.3. Other hazards**

**PBT:** This substance is not identified as a PBT substance.

**Section 3: Composition/information on ingredients**

**3.2. Mixtures**

[cont...]

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**Hazardous ingredients:**

REFINED MINERAL OIL

EINECS	CAS	CHIP Classification	CLP Classification	Percent
BLEND	BLEND	Substance with a Community workplace exposure limit.	-	>90%

**Section 4: First aid measures**

**4.1. Description of first aid measures**

**Skin contact:** Wash immediately with plenty of soap and water.

**Eye contact:** Bathe the eye with running water for 15 minutes.

**Ingestion:** Wash out mouth with water.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so.

**4.2. Most important symptoms and effects, both acute and delayed**

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** No symptoms.

**4.3. Indication of any immediate medical attention and special treatment needed**

**Section 5: Fire-fighting measures**

**5.1. Extinguishing media**

**Extinguishing media:** Use water spray to cool containers. Alcohol or polymer foam. Dry chemical powder.  
Carbon dioxide.

**5.2. Special hazards arising from the substance or mixture**

**Exposure hazards:** In combustion emits toxic fumes.

**5.3. Advice for fire-fighters**

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

**Section 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions:** Refer to section 8 of SDS for personal protection details.

**6.2. Environmental precautions**

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

**6.3. Methods and material for containment and cleaning up**

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

[cont...]

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**6.4. Reference to other sections**

**Section 7: Handling and storage**

**7.1. Precautions for safe handling**

**Handling requirements:** Avoid direct contact with the substance. Avoid the formation or spread of mists in the air.

**7.2. Conditions for safe storage, including any incompatibilities**

**Storage conditions:** Store in cool, well ventilated area. Keep away from direct sunlight.

**Suitable packaging:** Must only be kept in original packaging.

**7.3. Specific end use(s)**

**Section 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Hazardous ingredients:**

REFINED MINERAL OIL

**Workplace exposure limits:**

**Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	5mg/m <sup>3</sup>	10mg/m <sup>3</sup>	-	-

**8.2. Exposure controls**

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Respiratory protection not normally required.

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses with side-shields.

**Skin protection:** Protective clothing.

**Environmental:** No special requirement.

**Section 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

**State:** Liquid

**Colour:** Blue

**Odour:** Barely perceptible odour

**Evaporation rate:** Negligible

**Oxidising:** Non-oxidising (by EC criteria)

**Solubility in water:** Insoluble

**Viscosity:** Non-viscous

**Melting point/range°C:** < -20

**Flash point°C:** > 150

**Autoflammability°C:** > 150

**Relative density:** 0.82

[cont...]

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**9.2. Other information**

**Other information:** Not applicable.

**Section 10: Stability and reactivity**

**10.1. Reactivity**

**Reactivity:** Stable under recommended transport or storage conditions.

**10.2. Chemical stability**

**Chemical stability:** Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.

**10.4. Conditions to avoid**

**Conditions to avoid:** Heat. Direct sunlight.

**10.5. Incompatible materials**

**Materials to avoid:** Strong oxidising agents. Strong reducing agents.

**10.6. Hazardous decomposition products**

**Haz. decomp. products:** In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

**Section 11: Toxicological information**

**11.1. Information on toxicological effects**

**Toxicity values:** Not applicable.

**Symptoms / routes of exposure**

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** No symptoms.

**Section 12: Ecological information**

**12.1. Toxicity**

**Ecotoxicity values:** Not applicable.

**12.2. Persistence and degradability**

**Persistence and degradability:** Only slightly biodegradable.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential:** No bioaccumulation potential.

**12.4. Mobility in soil**

**Mobility:** Non-volatile. Insoluble in water. Readily absorbed into soil.

[cont...]

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**12.5. Results of PBT and vPvB assessment**

**PBT identification:** This substance is not identified as a PBT substance.

**12.6. Other adverse effects**

**Section 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal of packaging:** Dispose of in a regulated landfill site or other method for hazardous or toxic wastes.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

**Section 14: Transport information**

**Transport class:** This product does not require a classification for transport.

**Section 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**15.2. Chemical Safety Assessment**

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

**Section 16: Other information**

**Other information**

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.