



## SAPPHIRE® Aqua-Sil

Highly resistant silicone grease for long term lubrication

### Product Overview

ROCOL® SAPPHIRE Aqua-Sil is a translucent, non-toxic grease that has been designed for the lubrication of seals, 'O' rings, slides, slow speed bearings and other similar light to medium duty applications.

SAPPHIRE Aqua-Sil has a high dielectric strength, is resistant to chemicals, oils and gases and can be used as an electrical filling compound.

**Water Regulations Advisory Scheme – Approved Product – Approval Number: 1203533**

### Features and Benefits

- Excellent wide temperature resistance – ranging from -40°C to +200°C and it can protect up to +220°C for short periods.
- Outstanding resistance to chemicals, oils and gases far superior to standard greases.
- Excellent resistance to water, including salt water, ensuring components are protected even in submerged conditions.
- SAPPHIRE Aqua-Sil is approved for use in both hot and cold potable (drinking) water.
- Suitable for use as a rubber lubricant for most rubbers (not suitable for silicone rubber).
- Commonly used for the assembly of rubber seals, tap washers and 'o' rings.
- Ideal lubricant for most types of plastics.
- Extremely long wet life reducing re-lubrication frequencies and in some cases can be used as a lifetime lubricant.
- High dielectric strength making it ideal for use as an electrical filling compound.

### Directions for Storage and Use

- SAPPHIRE Aqua-Sil can be applied manually, by a silicone grease gun, or by other methods suitable for use with silicone greases.
- For best results the previous lubricant should be removed prior to application.
- DO NOT USE ON SILICONE RUBBER.
- The storage temperature should be controlled between +1°C and +40°C.
- Shelf life is 3 years from date of manufacture.

### Typical Applications

SAPPHIRE Aqua-Sil is designed for long term, light, and possibly lifetime, lubrication depending on application.

SAPPHIRE Aqua-Sil is particularly suitable as a rubber assembly grease on seals, 'O' rings, gaskets and washers.

SAPPHIRE Aqua-Sil is ideal for use where a high performance, water and chemical resistant lubricant is required such as Water Authorities, Gas & Plumbing, and most other industries where a multi-purpose water and chemical resistant silicone grease is required.

SAPPHIRE Aqua-Sil excels in applications such as the assembly or repair of pneumatic/hydraulic valves & cylinders, tap & shower washers, valve seals, toys and many other applications where rubbers or plastics require a light, colourless, non-toxic lubricant for long term or possible lifetime lubrication.

### Pack Sizes

Pack Size	Part Code
85g tube	12251
500g	12253
5kg	12256



## SAPPHIRE® Aqua-Sil

Highly resistant silicone grease for long term lubrication

Property	Test Method	Result
Appearance	Visual	White, translucent grease
NLGI No.	IP 50 – ASTM D217	3 / 4
Base Type	N/A	Silicone oil
Base Fluid Viscosity at 40°C	IP71	700cSt
Base Fluid Viscosity at 100°C	IP71	380cSt
Thickener	N/A	Inorganic colloid
Temperature Range	N/A	-40°C to +200°C (+220°C short periods)
Evaporation Loss 24 hrs at 100°C	ASTM D 972	<0.5%
Oil Separation 24 hrs at 100°C	IP 121	<2.5%
Resistance to Water	DIN 51807	Fully resistant '0' rating
Copper Corrosion Test 24 hrs at 100°C	IP 112 – ASTM D130	No stain
Oxidation Resistance (Pressure Drop)	IP 142	Less than 1 psi
Dielectric Strength	BS 2918:1957	30 kv/mm
Volume Resistivity	BS 903: 1982	5.5 x 10 <sup>11</sup>
DmN Factor	N/A	100,000

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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T +44 (0) 113 232 2600  
F +44 (0) 113 232 2740  
E [customer-service@rocol.com](mailto:customer-service@rocol.com)  
[www.rocol.com](http://www.rocol.com)

ROCOL House, Swillington, Leeds LS26 8BS

Registered Company No. 559693 VAT No. 742 0531 67  
Registered Office: Admiral House, St Leonard's Road, Windsor, Berkshire SL4 3BL

ROCOL A division of *ITW* Ltd



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Certificate No. OHS 78173



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**SAFETY DATA SHEET**  
SAPPHIRE AQUA-SIL

**Page:** 1  
**Compilation date:** 16/05/2011  
**Revision No:** 4

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

**1.1. Product identifier**

**Product name:** SAPPHIRE AQUA-SIL

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

**Use of substance / mixture:** Lubricating Grease

**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**

**Contains:** NON-HAZARDOUS SUBSTANCE1 - 100%

[cont...]

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## 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.

### 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.

**Ingestion:** There may be irritation of the 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. Suitable extinguishing media for the surrounding fire should be used.

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

**Exposure hazards:** In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

### 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.

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

**Clean-up procedures:** Transfer to a closable, labelled salvage container for disposal by an appropriate method.

### 6.4. Reference to other sections

## Section 7: Handling and storage

[cont...]

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## 7.1. Precautions for safe handling

**Handling requirements:** Avoid direct contact with the substance.

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

**Storage conditions:** Store in cool, well ventilated area.

**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

**Workplace exposure limits:** Not applicable.

### 8.2. Exposure controls

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

**Hand protection:** Protective gloves.

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

**Skin protection:** Protective clothing.

## Section 9: Physical and chemical properties

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

**State:** Paste

**Colour:** White

**Odour:** Odourless

**Evaporation rate:** Negligible

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

**Solubility in water:** Insoluble

**Viscosity:** Highly viscous

**Melting point/range°C:** > 200

**Flash point°C:** > 150

**Autoflammability°C:** > 150

**Relative density:** 0.99

### 9.2. Other information

**Other information:** Not applicable.

## Section 10: Stability and reactivity

### 10.1. Reactivity

### 10.2. Chemical stability

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

[cont...]

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## 10.3. Possibility of hazardous reactions

## 10.4. Conditions to avoid

**Conditions to avoid:** Heat.

## 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.

**Ingestion:** There may be irritation of the 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:** Slightly bioaccumulable.

### 12.4. Mobility in soil

**Mobility:** Non-volatile. Absorbed only slowly into soil.

### 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.

[cont...]

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## 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.

Compiled in accordance with REACH.

**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.