Technical Data

Performance you can trust



SAPPHIRE® Spray Grease

Multi-purpose EP grease fortified with PTFE in an aerosol

Product Overview

ROCOL[®] SAPPHIRE Spray Grease is a high performance aerosol applied grease designed for the effective lubrication and protection of all types of bearings, slides, bushes, linkages and pins.

SAPPHIRE Spray Grease is a truly multi-purpose grease, fortified with PTFE, for an extensive range of applications including low temperatures, high temperatures and high speed. It also makes an ideal electrical contact grease.

SAPPHIRE Spray Grease is SAPPHIRE Premier in an aerosol can.

Features and Benefits

- Excellent extreme temperature resistance ranging from -50°C to +200°C.
- Excellent low temperature performance ensures components are protected even on equipment working constantly in extreme sub-zero conditions.
- Lithium complex soap technology and EP additives, including PTFE, provides outstanding high load.
- Fully synthetic base oil leaves minimal residues providing long life even at elevated temperatures.
- SAPPHIRE Spray Grease is highly resistant to oxidation, providing extended lubrication intervals whilst reducing equipment failure, downtime and lubricant usage.
- Excellent corrosion resistance to protect in humid, damp and even wet conditions.
- PTFE has an extremely low coefficient of friction and its inclusion in SAPPHIRE Spray Grease reduces stick-slip on start up ensuring a smooth controlled movement.

Directions for Storage and Use

- Shake the can well before use.
- Hold can upright and apply from a distance of 15-30 cm (6-12 inches).
- Check compatibility with painted or coated surfaces, plastics and rubbers if the product is liable to contact these materials.
- The storage temperature should be kept below +50°C, and the storage area should be out of direct sunlight.
- Shelf life is 5 years from date of manufacture.

Typical Applications

SAPPHIRE Spray Grease is designed for all types of bearings, slides, guides, bushes, linkages and pins. Particularly suitable for high speed bearings and those subjected to extremes of temperature.

SAPPHIRE Spray Grease is ideal for all industries where a truly versatile high performance lubricant in aerosol form is required such as Injection moulding, wood and composite manufacture, marine, docks, agriculture, construction, textile, brick and tile works and most other industries

SAPPHIRE Spray Grease excels in applications when the convenience of aerosol application is required such as robots, packaging and mechanical handling equipment, and similar applications where bearings, pins, guides, bushes, slides etc. require lubricating with a high performance grease.

Pack Sizes

| Pack Size | Part Code |
|-----------|-----------|
| 400ml | 34305 |

T +44 (0) 113 232 2600 F +44 (0) 113 232 2740 E customer-service@rocol.com 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



BS EN ISO 900

ate No. FM 12448



BS EN ISO 1400

e No. FMS 67596



te No. OHS 78173





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SAPPHIRE® Spray Grease

Multi-purpose EP grease fortified with PTFE in an aerosol

| Property | Test Method | Result |
|-------------------------------|---------------------|-------------------------------|
| Appearance | Visual | Thin, light beige greasy film |
| NLGI No. | IP 50 – ASTM D217 | 2 |
| Base Type | N/A | Synthetic hydrocarbon fluid |
| Base Fluid Viscosity at 40°C | IP 71 | 48cSt |
| Base Fluid Viscosity at 100°C | IP 71 | 8cSt |
| Thickener | N/A | Lithium complex soap |
| Solids | N/A | PTFE |
| Propellant | N/A | Hydrocarbon |
| Solvent | N/A | Isoparaffinic hydrocarbon |
| Temperature Range | N/A | -50°C to +200°C |
| 4-Ball Weld Load | IP 239 – ASTM D2596 | 355kg |
| 4-ball Mean Hertz Load | IP 239 – ASTM D2596 | 68kg |
| Evaporation Loss at 175°C | IP 183 – ASTM D972 | 4.1% |
| Copper Corrosion Test | IP 112 – ASTM D130 | 1b |

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

Safety Data Sheets

Safety data sheets are available for download from our website <u>www.rocol.com</u> 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. Issue: 1 Date: 01-11

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BS EN ISO 9001 Certificate No. FM 12448 BS EN ISO 14001 OHSAS 18001 Certificate No. EMS 67596 Certificate No. OHS 78173



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

1.1. Product identifier

Product name: SAPPHIRE SPRAY GREASE

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

Use of substance / mixture: Multi-purpose 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 |

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: F+: R12; -: R52/53

Most important adverse effects: Extremely flammable. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Label elements under CHIP:

Hazard symbols: Extremely flammable.



| Risk phrases: | R12: Extremely flammable. | | |
|-----------------|--|--|--|
| | R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the | | |
| | aquatic environment. | | |
| Safety phrases: | S16: Keep away from sources of ignition - No smoking. | | |
| | S23: Do not breathe spray. | | |

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S51: Use only in well-ventilated areas.

S35: This material and its container must be disposed of in a safe way.

2.3. Other hazards

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

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

HYDROCARBON AEROSOL PROPELLANT (<0.1% 1,3-BUTADIENE)

| EINECS | CAS | CHIP Classification | CLP Classification | Percent |
|-----------|------------|---------------------|--------------------|---------|
| 270-704-2 | 68476-85-7 | F+: R12 | - | 50-70% |

CYCLOPENTANE

| 206-016-6 | 287-92-3 | F: R11; -: R52/53 | Flam. Liq. 2: H225; Aquatic Chronic 3: | 30-50% |
|-----------|----------|-------------------|--|--------|
| | | | H412 | |

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. Consult a doctor.

Ingestion: Wash out mouth with water. Do not induce vomiting. Consult a doctor.

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

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

Skin contact: There may be irritation and redness 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. May cause dizziness.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Drowsiness or mental confusion may occur.

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

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Do not use water. Alcohol resistant foam. Carbon dioxide. Dry chemical powder. Use

water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Extremely flammable. Forms explosive air-vapour mixture. In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

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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. Eliminate all sources of

ignition.

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: Do not use equipment in clean-up procedure which may produce sparks. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Smoking is forbidden.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep away from sources of ignition. Keep away from direct sunlight. Ensure lighting and electrical equipment are not a source of ignition.
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:

HYDROCARBON AEROSOL PROPELLANT (<0.1% 1,3-BUTADIENE)

Workplace exposure limits:

Respirable dust

| State | 8 hour TWA | 15 min. STEL | 8 hour TWA | 15 min. STEL | |
|-------|-------------------|-------------------|------------|--------------|---|
| UK | 1000ppm 1750mg/m3 | 1250ppm 2180mg/m3 | - | | - |

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. Ensure lighting and electrical

equipment are not a source of ignition.

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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: | Liquid | |
|-------------------------------|--------------------------------|--------------------|
| Colour: | Beige | |
| Odour: | Characteristic odour | |
| Evaporation rate: | Fast | |
| Oxidising: | Non-oxidising (by EC criteria) | |
| Solubility in water: | Insoluble | |
| Viscosity: | Non-viscous | |
| Boiling point/range°C: | < 0 Melting point/range | ° C: < -130 |
| Flammability limits %: lower: | 1.8 up r | ber: 9.4 |
| Flash point°C: | < -100 Autoflammability | ° C: > 250 |
| Vapour pressure: | > 210 kPa Relative dens | ity: < 1 |

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.

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

Conditions to avoid: Direct sunlight. Heat. Sources of ignition.

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.

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Symptoms / routes of exposure

Skin contact: There may be irritation and redness 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. May cause dizziness.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Drowsiness or mental confusion may occur.

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: Highly volatile. Readily absorbed 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.

Section 14: Transport information

14.1. UN number

UN number: UN1950

14.2. UN proper shipping name

Shipping name: AEROSOLS, Flammable

14.3. Transport hazard class(es)

Transport class: 2

14.4. Packing group

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14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

14.6. Special precautions for user

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

| the approximation of the laws of Member States relating to aerosol dispensers. This safety data sheet is prepared in accordance with Commission Regulation (EU) No | |
|---|--|
| This safety data sheet is prepared in accordance with Commission Regulation (EU) No | |
| | |
| 453/2010. | |
| Compiled in accordance with REACH. | |
| Phrases used in s.2 and 3: H225: Highly flammable liquid and vapour. | |
| H412: Harmful to aquatic life with long lasting effects. | |
| R11: Highly flammable. | |
| R12: Extremely flammable. | |
| R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the | |
| aquatic environment. | |
| 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. | |