

**SAFETY DATA SHEET****Orion 98**

The safety data sheet is in accordance with Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued	01.12.2020
Revision date	22.11.2023

**1.1. Product identifier**

Product name	Orion 98
Specification No.	300101
Article no.	BL098B, BL098D, BL098E, BL098EL

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

Use of the substance / mixture	Lubricating grease.
Professional use	Yes
Consumer use	No

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

Company name	Relekta AS
Office address	Innspurten 1A
Postal address	Postboks 6169 Etterstad
Postcode	0663
City	Oslo
Country	Norway
Telephone number	+47 22 66 04 00
Fax	+47 22 66 04 01
Email	<a href="mailto:post@relekta.no">post@relekta.no</a>
Website	<a href="http://www.relekta.no">www.relekta.no</a>
Enterprise No.	NO 831 881 372

**1.4. Emergency telephone number**

Emergency telephone	Telephone number: +47 22 59 13 00 Description: Norwegian Poison Information Center
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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

CLP classification, notes	Classification according to (EC) No.1272/2008: Not classified.
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### 2.2. Label elements

Supplemental label information	EUH 210 Safety data sheet available on request.
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### 2.3. Other hazards

PBT / vPvB	The chemical contains no PBT or vPvB substances $\geq 0,1\%$ .
Health effect	May cause temporary eye irritation. Repeated exposure may cause skin dryness or cracking. Inhalation at high temperatures can irritate the respiratory system.
Other hazards	The chemical does not contain any known or suspected endocrine disruptors $\geq 0,1\%$ .

## SECTION 3: Composition / information on ingredients

### 3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
Distillates (petroleum) , hydrotreated heavy naphthenic	CAS No.: 64742-52-5 EC No.: 265-155-0 REACH Reg. No.: 01-2119467170-45		50 < 80 %	2
Calcium Carbonate	CAS No.: 1317-65-3 EC No.: 215-279-6		5 < 10 %	6
Dilithium sebacate	CAS No.: 19370-86-6 REACH Reg. No.: 01-2120119384-60	Acute Tox. 4; H302	1 < 3 %	
Calcium Tetraborate	CAS No.: 12007-56-6 EC No.: 234-511-7	Repr. 2; H361d	1 < 3 %	
Phosphorodithioic acid, O, O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts	CAS No.: 85940-28-9 EC No.: 288-917-4	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 2; H411	1 < 2,5 %	

<sup>2</sup>Substance with a workplace exposure limit

<sup>6</sup>Substance listed as additional information

Remarks, substance	CAS-nr.:64742-52-5 contains <3% DMSO-extract. This indicates that the ingredient is not carcinogenic. ATE (oral): 500 mg/kg Value for: CAS: 19370-86-6.
Substance comments	For substances without REACH registration number, no information has been provided by the subcontractor or manufacturer. CAS-nr: 1317-65-3 is exempted from REACH registration.

See section 16 for explanation of hazard statements (H) listed above.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

General	Emergency telephone number: see section 1.4.
Inhalation	Fresh air and rest. Get medical attention if any discomfort continues.
Skin contact	Remove contaminated clothing. Wash the skin immediately with soap and water. Contact physician if symptoms appears.
Eye contact	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. By prolonged rinsing, use luke warm water to avoid damage to the eye. Contact physician if discomfort continues.
Ingestion	Rinse mouth thoroughly. Give some cream or vegetable oil. Do not induce vomiting. Get medical attention.

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

Acute symptoms and effects	Inhalation: Inhalation of dust and vapor at high temperatures can irritate the respiratory tract. Eye contact: May cause temporary eye irritation. Ingestion: May irritate mouth, throat and digestive tract. May cause nausea, vomiting and diarrhea.
Delayed symptoms and effects	Prolonged or repeated contact may dry skin and cause irritation.

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

Other information	Treat symptomatically. No specific information from the manufacturer.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	Dry-powder, carbon dioxide (CO <sub>2</sub> ), water mist, alcohol resistant foam.
Improper extinguishing media	Do not use full water jet when extinguishing fires as this may spread the fire.

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

Fire and explosion hazards	The chemical is not classified as flammable.
Hazardous combustion products	May include, but is not limited to: Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide (CO). Oxides of nitrogen (NO <sub>x</sub> ) Sulphurous gases (SO <sub>x</sub> ). Oxides of phosphorous (PO <sub>x</sub> ). Hydrogen sulphide (H <sub>2</sub> S). Metal oxides.

### 5.3. Advice for firefighters

Personal protective equipment	Use compressed air equipment when the chemical is involved in fire. In case of evacuation, an approved protection mask should be used. See also section 8.
Other information	Containers close to fire should be removed immediately or cooled with water.

## SECTION 6: Accidental release measures

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

Personal protection measures	Ensure adequate ventilation. In case of spills, beware of slippery floors and surfaces. Avoid inhalation of vapours and contact with skin and eyes. Use protective equipment as referred to in section 8.
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### 6.2. Environmental precautions

Environmental precautionary measures	Do not allow to enter into sewer, water system or soil.
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### 6.3. Methods and material for containment and cleaning up

Clean up	Absorb in vermiculite, dry sand or earth, and place into containers. Collect in a suitable container and dispose as hazardous waste according to section 13.
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### 6.4. Reference to other sections

Other instructions	See also sections 8 and 13.
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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Handling	Provide adequate ventilation. When working with heated grease, mechanical ventilation may be required. Avoid inhalation of vapours and contact with skin and eyes. Use protective equipment as referred to in section 8.
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### Protective safety measures

Advice on general occupational hygiene	Do not eat, drink or smoke during work. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash contaminated clothing before reuse.
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### 7.2. Conditions for safe storage, including any incompatibilities

Storage	Keep container tightly closed. Store in a cool and well-ventilated place. Store in a dry place.
Conditions to avoid	Protect from sunlight. Frost. Keep away from heat / sparks / open flames / hot surfaces. – No smoking.

### Conditions for safe storage

Advice on storage compatibility	Keep away from: Strong oxidizing agents. Strong alkalis. Strong acids.
Storage temperature	Value: 0 - 40 °C
Storage stability	Maximum storage time: 5 years..

### 7.3. Specific end use(s)

Specific use(s)	See section 1.2.
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## SECTION 8: Exposure controls / personal protection

### 8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
Oil vapour		Limit value (8 h) : 50 mg/m <sup>3</sup>	
Oil mist (mineral particles)		Limit value (8 h) : 1 mg/m <sup>3</sup>	
Control parameters comments	References (laws/regulations): Norwegian regulation on exposure limits: FOR-2011-12-06-1358 Forskrift om tiltaks- og grenseverdier (sist endret gjennom FOR-2023-03-24-412).		

### 8.2. Exposure controls

#### Precautionary measures to prevent exposure

Technical measures to prevent exposure	Provide adequate ventilation. The personal protective equipment must be CE-marked and the latest version of the standards shall be used. The protective equipment and the specified standards recommended below are only suggestions, and should be selected on advice from the supplier of such equipment.  A risk assessment of the work place/work activities (the actual risk) may lead to other control measures. The protection equipment's suitability and durability will depend on application.
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#### Eye / face protection

Eye protection equipment	Description: At risk of eye contact: Wear tight-fitting goggles or face shield. Reference to relevant standard: EN ISO 16321-1:2022 (Eye and face protection for occupational use - Part 1: General requirements).
Additional eye protection measures	Eye wash facilities should be available at the work place. Either a fixed eye wash facility connected to the drinking water (preferably warm water) or a portable disposable unit.

#### Hand protection

Suitable gloves type	Nitrile.
Breakthrough time	Value: > 30 minute(s)
Thickness of glove material	Value: > 0,09 mm
Hand protection equipment	Description: Use chemical resistant gloves. The gloves abilities may vary among the different glove manufacturers. Reference to relevant standard: EN ISO 374 (Protective gloves against chemicals and micro-organisms). EN ISO 21420:2020 (Protective gloves - General requirements and test methods).
Additional hand protection measures	Replace gloves if signs of wear and tear. Gloves must only be worn on clean, dry hands.

#### Skin protection

Recommended protective clothing	Description: Wear appropriate clothing to prevent repeated or prolonged skin contact.
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Additional skin protection measures	Emergency shower should be available at the workplace.
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### Respiratory protection

Recommended respiratory protection	Description: Normally not required. In case of insufficient ventilation, use respirator with A filter against solvent vapors.
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### Appropriate environmental exposure control

Environmental exposure controls	Do not allow to enter into sewer, water system or soil.
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## SECTION 9: Physical and chemical properties

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

Form	Solid
Physical state	Paste.
Colour	Red.
Odour	Almost odourless.
pH	Comments: Not relevant.
Melting point / melting range	Value: $\geq 230$ °C Method: ASTM D2265
Boiling point / boiling range	Comments: Not specified by the manufacturer.
Flash point	Value: $\geq 200$ °C Method: ASTM D93
Flammability	Non flammable.
Explosion limit	Comments: Not specified by the manufacturer.
Vapour pressure	Comments: Not specified by the manufacturer.
Vapour density	Comments: Not specified by the manufacturer.
Particle characteristics	Comments: Not relevant.
Relative density	Value: 0,88 - 0,98 Temperature: 25 °C
Solubility	Medium: Water Comments: Insoluble.
Partition coefficient: n-octanol/ water	Comments: Not relevant.
Auto-ignition temperature	Comments: Not specified by the manufacturer.
Decomposition temperature	Comments: Not specified by the manufacturer.
Viscosity	Value: $\sim 150$ mm <sup>2</sup> /s Comments: Major component. Temperature: 40 °C

### 9.2. Other information

## Other physical and chemical properties

Physical and chemical properties	No further information is available.
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	No test data available.
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### 10.2. Chemical stability

Stability	Stable under normal temperature conditions and recommended use.
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### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No hazardous reactions expected with the prescribed use and storage.
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### 10.4. Conditions to avoid

Conditions to avoid	Avoid frost. Keep away from sources of ignition - No smoking.
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### 10.5. Incompatible materials

Materials to avoid	Strong oxidizing agents, strong acids, strong bases.
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### 10.6. Hazardous decomposition products

Hazardous decomposition products	None under normal conditions. See also section 5.2.
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## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity	Value: 500 mg/kg bw Comments: ATE. Applies to CAS: 19370-86-6.
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### Other information regarding health hazards

Assessment of acute toxicity, classification	Based on available data, the classification criteria are not met.
Assessment of skin corrosion / irritation, classification	Based on available data, the classification criteria are not met.
Assessment of eye damage or irritation, classification	Based on available data, the classification criteria are not met.
Assessment of respiratory sensitisation, classification	Based on available data, the classification criteria are not met.
Assessment of skin sensitisation, classification	Based on available data, the classification criteria are not met.
Assessment of germ cell mutagenicity, classification	Based on available data, the classification criteria are not met.
Assessment of carcinogenicity, classification	Based on available data, the classification criteria are not met.

Assessment of reproductive toxicity, classification	Based on available data, the classification criteria are not met.
Assessment of specific target organ toxicity - single exposure, classification	Based on available data, the classification criteria are not met.
Assessment of specific target organ toxicity - repeated exposure, classification	Based on available data, the classification criteria are not met.
Assessment of aspiration hazard, classification	Based on available data, the classification criteria are not met.

## Symptoms of exposure

In case of ingestion	The chemical may irritate the stomach/intestines and can cause abdominal pain, nausea, vomiting and diarrhoea.
In case of skin contact	Prolonged or repeated contact may dry skin and cause irritation.
In case of inhalation	Inhalation of vapour from heated chemical may be irritating to the respiratory system.
In case of eye contact	May cause eye irritation. Symptoms may be stinging pain and redness in the eyes.

## 11.2 Other information

Endocrine disruption	The chemical does not contain any known or suspected endocrine disruptors $\geq 0,1\%$ .
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## SECTION 12: Ecological information

### 12.1. Toxicity

Aquatic toxicity, algae	Value: 2,1 mg/l
	Effect dose concentration: EC50
	Exposure time: 72 hour(s)
	Comments: Applies to CAS: 85940-28-9.
Aquatic toxicity, algae	Value: 2 mg/l
	Effect dose concentration: EC50
	Exposure time: 72 hour(s)
	Comments: Applies to CAS: 85940-28-9.
Aquatic toxicity, algae	Value: 2,1 mg/l
	Effect dose concentration: EC50
	Exposure time: 96 hour(s)
	Comments: Applies to CAS: 85940-28-9.
Aquatic toxicity, algae	Value: 2 mg/l
	Effect dose concentration: EC50
	Exposure time: 96 hour(s)
	Comments: Applies to CAS: 85940-28-9.
Aquatic toxicity, crustacean	Value: 5,4 mg/l
	Effect dose concentration: EC50
	Species: Daphnia magna

## Ecotoxicity

Comments: Applies to CAS: 85940-28-9.  
The chemical is not classified as harmful to the environment.

**12.2. Persistence and degradability**

## Persistence and degradability description/evaluation

CAS-no. 85940-28-9 No data available.

**12.3. Bioaccumulative potential**

## Bioaccumulation, evaluation

Log Pow: 2 - 6. Applies to CAS: 64742-52-5.  
CAS-no. 85940-28-9 No data available.

**12.4. Mobility in soil**

## Mobility

Insoluble in water.

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

## Results of PBT and vPvB assessment

The chemical contains no PBT or vPvB substances  $\geq 0,1\%$ .

**12.6. Endocrine disrupting properties**

## Endocrine disrupting properties

The chemical does not contain any known or suspected endocrine disruptors  $\geq 0,1\%$ .

**12.7. Other adverse effects**

## Additional ecological information

Prevent unintentional discharges into sewers/ water courses or soil.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

## Appropriate methods of disposal for the chemical

Disposed of as hazardous waste by approved contractor. The waste code (EWC-Code) is intended as a guide. The code must be chosen by the user, if the use differs from the one mentioned below.

## EWC waste code

EWC waste code: 120112 spent waxes and fats  
Classified as hazardous waste: Yes

## NORSAS

7021 Oily and greasy waste

## Other information

Do not empty into drains.

**SECTION 14: Transport information**

## Dangerous goods

No

**14.1. UN number**

## Comments

Not considered as dangerous goods under UN, IMO, ADR/RID or IATA/ICAO regulations.

**14.2. UN proper shipping name**

Comments	Not relevant.
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**14.3. Transport hazard class(es)**

Comments	Not relevant.
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**14.4. Packing group**

Comments	Not relevant.
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**14.5. Environmental hazards**

IMDG Marine pollutant	No
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**14.6. Special precautions for user**

Special safety precautions for user	Not relevant.
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**14.7. Maritime transport in bulk according to IMO instruments**

Transport in bulk (yes/no)	No
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**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture**

References (laws/regulations)	<p>Regulation (EC) No 1907/2006 on the registration, evaluation, authorization and restriction of chemicals (REACH Regulation), with later amendments.</p> <p>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP-regulation) with later amendments.</p> <p>Norwegian regulations on waste, no. 930/2004, from Ministry of the Environment with later amendments.</p> <p>Norwegian regulation on dangerous goods: FOR 2009-04-01 nr 384: Forskrift om landtransport av farlig gods med senere endringer, Direktoratet for samfunnssikkerhet og beredskap.</p>
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**15.2. Chemical safety assessment**

Chemical safety assessment performed	No
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**SECTION 16: Other information**

Supplier's notes	The information contained in this SDS must be made available to all those who handle the product.
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List of relevant H-phrases (Section 2 and 3)	<p>H302 Harmful if swallowed.</p> <p>H315 Causes skin irritation.</p> <p>H319 Causes serious eye irritation.</p> <p>H361d Suspected of damaging the unborn child.</p> <p>H411 Toxic to aquatic life with long lasting effects.</p>
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CLP classification, comments	Calculation method.
Key literature references and sources for data	Suppliers Safety data sheet dated: 15.11.2022
Abbreviations and acronyms used	ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road CAS: Chemical Abstracts Service number CLP: Classification, Labelling and Packaging of substances and mixtures EWC: European Waste Code (a code from the EU's common classification system for waste) ECHA: European CHemicals Agency IATA: The International Air Transport Association ICAO: The International Civil Aviation Organisation IMDG: The International Maritime Dangerous Goods Code IMO: International Maritime Organization PBT: Persistent, Bioaccumulative and Toxic RID: The Regulations concerning the International Carriage of Dangerous Goods by Rail UN: United Nations vPvB: very Persistent and very Bioaccumulative
Information added, deleted or revised	Sections being revised since previous version: 1 - 12, 14, 15, 16
Checking quality of information	This SDS is quality controlled by Kiwa Kompetanse AS in Norway, certified according to the Quality Management System requirements specified in ISO 9001:2015.
Version	2
Prepared by	Kiwa Kompetanse AS, NOB