

Safety Data Sheet

according to Regulation (EC) No 1907/2006

NORC GEARÖL LS SAE 80W-90

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

1.1. Product identifier

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

Use of the substance/mixture

Transmission oil

Uses advised against

No uses known.

1.3. Details of the supplier of the safety data sheet

Company name: Nano Oil Refining Company NORC GmbH

Street: Am Kaiserkai 69

Place: D-20457 Hamburg

e-mail: info@norc-germany.de

Internet: www.norc-germany.de

Further Information

Mixtures must not be registered according to REACH (article 2.7 d). REACH registration numbers of dangerous substances in this mixture (if available): See item 3.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: Xi - Irritant

R phrases:

May cause sensitisation by skin contact.

GHS classification

Hazard categories:

Respiratory/skin sensitization: Skin Sens. 1

Hazard Statements:

May cause an allergic skin reaction.

2.2. Label elements

Hazardous components which must be listed on the label

Polysulfides, di-tert-Bu

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)

Signal word: Warning

Pictograms: GHS07



Hazard statements

H317

May cause an allergic skin reaction.

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Precautionary statements

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

Product can build up a film on the water surface which can inhibit the oxygen exchange. See also sections 11, 12 and 15.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Additive, mineral oil.

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
273-103-3	Polysulfides, di-tert-Bu	2.5 - < 5 %
68937-96-2	Xi - Irritant R38-43-52-53	
	Skin Sens. 1B, Aquatic Chronic 3; H317 H412	
01-2119540515-43		
931-384-6	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	1 - < 2.5 %
	Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R22-41-43-51-53	
	Acute Tox. 4, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 2; H302 H318 H317 H411	
01-2119493620-38		
	Methacrylate copolymer	1 - < 2.5 %
	Xi - Irritant R36	
	Eye Irrit. 2; H319	
209-909-9	O,O,O-triphenyl phosphorothioate	0.1 - < 0.5 %
597-82-0	Repr. Cat. 3 R53-62-63	
	Repr. 2, Aquatic Chronic 4; H361 H413	

Full text of R and H phrases: see Section 16.

Further Information

All concentrations are quoted as mass percentages for liquids and volume percentages for gases.

Other substances which are not classified as dangerous are contained up to 100 %.

Full text of R- and H-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps.

After inhalation

Remove casualty to fresh air and keep warm and at rest. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated clothing immediately and dispose off safely. In case of skin irritation, seek medical treatment.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Do NOT induce vomiting. Call a physician immediately. Aspiration hazard:

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

No data available.

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

No data available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂).
Foam.
Dry extinguishing powder.
Use water spray jet to protect personnel and to cool endangered containers.

Unsuitable extinguishing media

Water.

5.2. Special hazards arising from the substance or mixture

The formation of combustible vapours is possible at temperatures above: Flash point.
Hot product may produce flammable vapours.

Can be released in case of fire:

Pyrolysis products, toxic.
hydrocarbons.
Carbon dioxide.
Carbon monoxide.
Hydrogen sulphide (H₂S).
Nitrogen oxides (NO_x).
Phosphorus oxides.
Smoke.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.
Full protective suit.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Additional information

B: Burning liquid or melting substances.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation as well as local exhaustion at critical locations.
Keep away from sources of ignition. - No smoking.
Avoid contact with skin and eyes.
Conditions to avoid: Inhalation.
Do not put any product-impregnated cleaning rags into your trouser pockets.
High slip hazard because of leaking or spilled product.

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not empty into drains.
If product enters soil, it will be mobile and may contaminate groundwater.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

See section 8 & 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

See section 6.1
Avoid contact with skin and eyes.
Keep away from sources of ignition. - No smoking.
Wash hands before breaks and after work.
All work processes must always be designed so that the following is excluded:
Generation/formation of mist

Advice on protection against fire and explosion

Take precautionary measures against static discharge.

Further information on handling

Do not put any product-impregnated cleaning rags into your trouser pockets.
The formation of combustible vapours is possible at temperatures above: Flash point

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container.

Advice on storage compatibility

Do not store together with:
Spontaneous combustion.

Further information on storage conditions

Protect from moisture.
Keep in a cool place.
Keep only in the original container at temperature not exceeding 50 °C.

7.3. Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Protective and hygiene measures

Take off immediately all contaminated clothing.

Wash hands before breaks and after work. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside.

Eye/face protection

Tightly sealed safety glasses.

German Industry Norms (DIN) / European Norms (EN): DIN EN 166

Hand protection

Examples of suitable protective gloves from the company KCL GmbH, D-36124 oak cellular, phone +49 (0) 6659 87300, E-mail are: vertrieb@kcl.de with the following specification (test according to EN 374

In full contact / splash contact:

Camatril (Item no. : 731; material: nitrile, Minimum coat thickness: 0.33 mm, Breakthrough time: 480 min)

Dematril (Item no. : 740; material: nitrile, Minimum coat thickness: 0.11 mm, Breakthrough time: 30 min)

The selected protective gloves have to satisfy the specifications of EU Directive 89/686 / EEC and the resultant standard EN374. The breakthrough times stated above are based on laboratory measurements of KCL to EN374 and are only authoritative for the recommended glove types.

Protect skin by using skin protective cream.

Skin protection

The type of personal protection equipment has to be chosen based on the concentration and amount of the dangerous substance at the workplace. For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).

Chemical resistant safety shoes. with lead protection cap.

German Industry Norms (DIN) / European Norms (EN): DIN EN 344

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Generation/formation of mist: Filtering device with filter or ventilator filtering device of type: A-P2.

Environmental exposure controls

Technical measures to prevent exposure.

Organisational measures to prevent exposure.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	yellow, brown
Odour:	characteristic

Changes in the physical state

	Test method
Initial boiling point and boiling range:	> 320 °C
Flash point:	> 200 °C DIN ISO 2592
Lower explosion limits:	0,6 vol. %
Upper explosion limits:	6,5 vol. %

Ignition temperature: > 250 °C ASTM E 659

 Density (at 15 °C): 887 - 897 g/cm³ DIN 53217

Solubility in other solvents

insoluble in: Water.

 Viscosity / kinematic:
 (at 100 °C) 14,0 -18,0 mm²/s DIN 51562

9.2. Other information

No data available.

SECTION 10: Stability and reactivity
10.1. Reactivity

See section 9.

10.2. Chemical stability

If product is stored and handled as prescribed it is stable.

10.3. Possibility of hazardous reactions

The formation of combustible vapours is possible at temperatures above: Flash point

10.4. Conditions to avoid

Oxidizing agents, strong.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

See section 5.3.

SECTION 11: Toxicological information
11.1. Information on toxicological effects
Toxicokinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

Acute toxicity

Classification: none.

The classification was carried out according to the calculation method of the regulation (EC) 1272/2008 [CLP].

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)				
	oral	LD50	500 mg/kg		Estimation acc. CLP

Irritation and corrosivity

Classification: none.

The classification was carried out according to the calculation method of the regulation (EC) 1272/2008 [CLP].

Slightly irritating but irrelevant classification. This information is based on data for the used additive package.

Sensitising effects

Classification: none.

Frequently or prolonged contact with skin may cause dermal irritation.

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Severe effects after repeated or prolonged exposure

Classification: none.

The classification was carried out according to the calculation method of the regulation (EC) 1272/2008 [CLP].

Specific effects in experiment on an animal

There are no data available on the preparation/mixture itself.

Additional information on tests

Frequently or prolonged contact with skin may cause dermal irritation.

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the preparation/mixture itself.

Classification: none.

The classification was carried out according to the calculation method of the regulation (EC) 1272/2008 [CLP].

12.2. Persistence and degradability

Not easily bio-degradable (according to OECD-criteria).

Product is not easily biodegradable. (Data apply to the main component.)

12.3. Bioaccumulative potential

There are no data available on the preparation/mixture itself.

12.4. Mobility in soil

There are no data available on the preparation/mixture itself.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

Effects in sewage plants: Mechanical separation in a suitable sewage plant is possible.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)".

Observe mixture permissions according to "Altölverordnung (Waste oil directive)".

Waste disposal according to EC Directives 75/442/EEC and 91/689/EEC on waste and hazardous waste in their latest versions.

According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Waste disposal number of waste from residues/unused products

130205 OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19); waste engine, gear and lubricating oils; mineral-based non-chlorinated engine, gear and lubricating oils

Classified as hazardous waste.

Waste disposal number of used product

130205 OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19); waste engine, gear and lubricating oils; mineral-based non-chlorinated engine, gear and lubricating oils

Classified as hazardous waste.

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Waste disposal number of contaminated packaging

130205 OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19); waste engine, gear and lubricating oils; mineral-based non-chlorinated engine, gear and lubricating oils
Classified as hazardous waste.

Contaminated packaging

Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled.
Packing which cannot be properly cleaned must be disposed of.

SECTION 14: Transport information

Other applicable information

No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

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

National regulatory information

Water contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Full text of R phrases referred to under Sections 2 and 3

22	Harmful if swallowed.
36	Irritating to eyes.
38	Irritating to skin.
41	Risk of serious damage to eyes.
43	May cause sensitisation by skin contact.
51	Toxic to aquatic organisms.
52	Harmful to aquatic organisms.
53	May cause long-term adverse effects in the aquatic environment.
62	Possible risk of impaired fertility.
63	Possible risk of harm to the unborn child.

Full text of H statements referred to under Sections 2 and 3

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H361	Suspected of damaging fertility or the unborn child.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

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