

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

1.1. Product identifier

| | |
|-------------------------------|--------------------------------------|
| Product form | : Mixture |
| Product name | : NORDLUB HYDRAULIKÖL XHVI 32 ARCTIC |
| Product code | : 24500 |
| Type of product | : NORDLUB |
| Product group | : Blend |
| Other means of identification | : Art. Nr.: 15036 |

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

1.2.1. Relevant identified uses

| | |
|----------------------------------|--|
| Main use category | : Industrial use, Professional use, Consumer use |
| Industrial/Professional use spec | : Non-dispersive use Used in closed systems |
| Function or use category | : Lubricants and additives |

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

NORDLUB Deutschland GmbH
Lange Str. 49
D-21614 Buxtehude - Deutschland / Germany
T +49 (0)4161 / 55 905 - 0 - F +49 (0)4161 / 55 905 - 29
info@nordlub.de - www.nordlub.de

1.4. Emergency telephone number

| | |
|------------------|--|
| Emergency number | : +49 (0)4161 / 55 905 0 This number is reachable only during office hours. |
|------------------|--|

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

| | |
|--------------------------------|--|
| Signal word (CLP) | : - |
| Hazard statements (CLP) | : H412 - Harmful to aquatic life with long lasting effects. |
| Precautionary statements (CLP) | : P273 - Avoid release to the environment. P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. |

2.3. Other hazards

No additional information available

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : The mineral oils in the product contain < 3% DMSO extract (IP 346)

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|--|----------|--|
| Base oil : distillates hydrotreated light paraffinic | (CAS-No.) 64742-55-8 (EC-No.) 265-158-7 (EC Index-No.) 649-468-00-3 (REACH-no) 01-2119487077-29 | 75 – 90 | Asp. Tox. 1, H304 |
| Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) | (CAS-No.) 4259-15-8 (EC-No.) 224-235-5 (REACH-no) 01-2119493635-27 | 0,9506 | Eye Dam. 1, H318 Aquatic Chronic 2, H411 |
| 2,6-Di-tert-butylphenol | (CAS-No.) 128-39-2 (EC-No.) 204-884-0 (REACH-no) 01-2119490822-33 | 0,3686 | Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| Bis(nonylphenyl)amine | (CAS-No.) 36878-20-3 (EC-No.) 253-249-4 (REACH-no) 01-2119488911-28 | 0,09506 | Aquatic Chronic 4, H413 |
| A mixture of: calcium bis(C10-14 branched alkylsalicylate); calcium bis(C18-30 alkyl salicylate); calcium bis(C18-30 alkyl phenolate); calcium bis(C10-14 branched alkyl phenolate); lubricating oil (C15-30) | (EC-No.) 455-880-2 (REACH-no) 01-0000019268-63 | 0,09506 | Skin Sens. 1, H317 Aquatic Chronic 4, H413 |
| Zinc bis(dinonylnaphthalenesulphonate) | (CAS-No.) 28016-00-4 (EC-No.) 248-778-2 (REACH-no) 01-2120130528-59 | 0,09506 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 4, H413 |
| Phenol, C18-30-alkyl derivs., calcium salts | (CAS-No.) 851232-34-3 | 0,09506 | Skin Irrit. 2, H315 Aquatic Chronic 4, H413 |
| Benzoic acid, hydroxy-, mono-C20-28- branched derivs., calcium salts (2:1) | (CAS-No.) 900185-23-1 | 0,019206 | Skin Sens. 1, H317 Aquatic Chronic 4, H413 |
| Dodecylphenol, mixed isomers (branched) | (CAS-No.) 121158-58-5 (EC-No.) 310-154-3 (REACH-no) 01-2119513207-49 | 0,005626 | Skin Corr. 1C, H314 Eye Dam. 1, H318 Repr. 1B, H360F Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10) |

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Not expected to require first aid measures.
First-aid measures after skin contact : Wash skin with mild soap and water.
First-aid measures after eye contact : In case of eye contact, immediately rinse with clean water for 10-15 minutes.
First-aid measures after ingestion : Do not induce vomiting. Rinse mouth. Get immediate medical advice/attention.

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

Symptoms/effects after inhalation : Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

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| | |
|-------------------------------------|--|
| Symptoms/effects after skin contact | : Not expected to present a significant skin hazard under anticipated conditions of normal use. |
| Symptoms/effects after eye contact | : May cause severe irritation. |
| Symptoms/effects after ingestion | : Not expected to present a significant ingestion hazard under anticipated conditions of normal use. |

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Water fog. Foam. Powder. Dry chemical product. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

| | |
|--------------------------------|---|
| Precautionary measures fire | : Exercise caution when fighting any chemical fire. |
| Firefighting instructions | : Use water spray or fog for cooling exposed containers. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

| | |
|----------------------|---|
| Protective equipment | : Wear suitable protective clothing and gloves. |
|----------------------|---|

6.1.2. For emergency responders

| | |
|----------------------|---|
| Protective equipment | : Wear suitable protective clothing and gloves. |
|----------------------|---|

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

| | |
|-------------------------|---|
| For containment | : Impound and recover large spill by mixing it with inert granular solids. |
| Methods for cleaning up | : Detergent. Take up liquid spill into absorbent material sand, saw dust, kieselguhr. |
| Other information | : Spill area may be slippery. Use suitable disposal containers. |

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-------------------------------|---|
| Precautions for safe handling | : Avoid all unnecessary exposure. Both local exhaust and general room ventilation are usually required. |
| Handling temperature | : < 40 °C |
| Hygiene measures | : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. |

7.2. Conditions for safe storage, including any incompatibilities

| | |
|---------------------|---|
| Storage temperature | : < 40 °C |
| Storage area | : Store in dry, cool, well-ventilated area. |

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7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional information : 5 mg/m³ for oil mists (TWA, 8h-workday) recommended, based upon the ACGIH TLV (Analysis according to US NIOSH Method 5026, NIOSH Manual of Analytical Methods, 3rd Edition).

8.2. Exposure controls

Personal protective equipment:

Safety glasses. Gloves.

Hand protection:

Permeation time: minimum >480min long term exposure; material / thickness [mm]: >0,35 mm. Nitrile rubber (NBR) /

Skin and body protection:

No special clothing/skin protection equipment is recommended under normal conditions of use

Respiratory protection:

No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | : Liquid |
| Appearance | : Oily liquid. |
| Colour | : Yellow. |
| Odour | : Characteristic. |
| Odour threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : > 150 °C @ ASTM D92 |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Density | : 847 kg/m ³ @ 15°C |
| Solubility | : Slightly soluble, the product remains on the water surface. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Viscosity, kinematic | : 29000000 mm ² /s @ 40°C |
| Viscosity, dynamic | : No data available |

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Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Strong oxidizers. acids. Bases.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)

| | |
|--------------------|--------------|
| LD50 oral rat | 3100 mg/kg |
| LD50 dermal rabbit | > 5000 mg/kg |

Bis(nonylphenyl)amine (36878-20-3)

| | |
|-----------------|-----------------------|
| LD50 oral rat | > 5000 mg/kg OECD 401 |
| LD50 dermal rat | > 2000 mg/kg OECD 402 |

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

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Aspiration hazard : Not classified

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| | |
|----------------------|------------------------------------|
| Viscosity, kinematic | 29000000 mm ² /s @ 40°C |
|----------------------|------------------------------------|

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)

| | |
|--------------------|---|
| LC50 fish 1 | 4,4 mg/l Oncorhynchus mykiss OECD 203 |
| LC50 fish 2 | ≥ 0 mg/l |
| EC50 Daphnia 1 | 75 mg/l Daphnia Magna OECD 201 |
| EC50 96h algae (1) | 240 mg/l Scenedesmus Subspicatus OECD 201 @21d |
| NOEC (acute) | 220 mg/l Scenedesmus subspicatus OECD201 - biomass |
| NOEC (chronic) | 0,4 mg/l Daphnia Magna OECD 211 @21d - results analog product |

Bis(nonylphenyl)amine (36878-20-3)

| | |
|--------------------|---|
| LC50 fish 1 | > 100 mg/l OECD 203 (Danio rerio @96h) |
| EC50 Daphnia 1 | > 100 mg/l OECD 202 (Daphnia magna) |
| EC50 72h algae (1) | > 100 mg/l OECD 201 (Desmodesdus subspicatus) |

12.2. Persistence and degradability

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| | |
|-------------------------------|--|
| Persistence and degradability | Not soluble in water, so only minimally biodegradable. |
|-------------------------------|--|

Bis(nonylphenyl)amine (36878-20-3)

| | |
|-------------------------------|----------------------------|
| Persistence and degradability | Not readily biodegradable. |
| Biodegradation | 1 % @28d |

Dodecylphenol, mixed isomers (branched) (121158-58-5)

| | |
|----------------|----------------------|
| Biodegradation | 25 % Sturm-test @28d |
|----------------|----------------------|

12.3. Bioaccumulative potential

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)

| | |
|---|------|
| Partition coefficient n-octanol/water (Log Kow) | 3,59 |
|---|------|

Bis(nonylphenyl)amine (36878-20-3)

| | |
|---|-----------------------------|
| Partition coefficient n-octanol/water (Log Pow) | > 7,6 |
| Bioaccumulative potential | Potential to bioaccumulate. |

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Dodecylphenol, mixed isomers (branched) (121158-58-5)

| | |
|---|-----------|
| Bioconcentration factor (BCF REACH) | 2,9 @27d |
| Partition coefficient n-octanol/water (Log Kow) | 7,1 @0,1d |

12.4. Mobility in soil

Bis(nonylphenyl)amine (36878-20-3)

| | |
|----------------|------------------------|
| Ecology - soil | Adsorbs into the soil. |
|----------------|------------------------|

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Additional information : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

| | |
|---------------|------------------|
| UN-No. (ADR) | : Not applicable |
| UN-No. (IMDG) | : Not applicable |
| UN-No. (IATA) | : Not applicable |
| UN-No. (ADN) | : Not applicable |
| UN-No. (RID) | : Not applicable |

14.2. UN proper shipping name

| | |
|-----------------------------|------------------|
| Proper Shipping Name (ADR) | : Not applicable |
| Proper Shipping Name (IMDG) | : Not applicable |
| Proper Shipping Name (IATA) | : Not applicable |
| Proper Shipping Name (ADN) | : Not applicable |
| Proper Shipping Name (RID) | : Not applicable |

14.3. Transport hazard class(es)

| | |
|-----------------------------------|------------------|
| ADR | |
| Transport hazard class(es) (ADR) | : Not applicable |
| IMDG | |
| Transport hazard class(es) (IMDG) | : Not applicable |
| IATA | |
| Transport hazard class(es) (IATA) | : Not applicable |
| ADN | |
| Transport hazard class(es) (ADN) | : Not applicable |
| RID | |
| Transport hazard class(es) (RID) | : Not applicable |

14.4. Packing group

| | |
|----------------------|------------------|
| Packing group (ADR) | : Not applicable |
| Packing group (IMDG) | : Not applicable |
| Packing group (IATA) | : Not applicable |

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Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : Base oil : distillates hydrotreated light paraffinic, Dodecylphenol, mixed isomers (branched) are listed

SZW-lijst van mutagene stoffen : Base oil : distillates hydrotreated light paraffinic, Dodecylphenol, mixed isomers (branched) are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : Dodecylphenol, mixed isomers (branched) is listed

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

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SECTION 16: Other information

Indication of changes:

| Section | Changed item | Change | Comments |
|---------|---|----------|----------|
| | Supersedes | Added | |
| | Revision date | Modified | |
| 2.1 | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Modified | |
| 2.2 | Precautionary statements (CLP) | Modified | |
| 2.2 | Hazard statements (CLP) | Modified | |
| 3 | Composition/information on ingredients | Modified | |
| 15.1 | Water hazard class (WGK) | Added | |

Abbreviations and acronyms:

| | |
|--|--|
| | ACGIH: American Conference of Governmental Industrial Hygienists |
| | TWA: Time Weighted Average |
| | TLV: Threshold Limit Value |
| | ASTM: American Society for Testing and Materials |
| | ADR: Accord Européen Relatif au Transport International des Marchandises Dangereuses par Route |
| | RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail |
| | ADNR: Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin |
| | IMDG: International Maritime Dangerous Goods |
| | ICAO: International Civil Aviation Organization |
| | IATA: International Air Transport Association |
| | STEL: Short Term Exposure Limit |
| | LD50: median Lethal Dose for 50% of subjects |
| | ATE: acute toxicity estimate |
| | LC50: median Lethal Concentration for 50% of subjects |
| | EC50: concentration producing 50% effect |

Other information

: The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

Full text of H- and EUH-statements:

| | |
|-------------------|---|
| Aquatic Acute 1 | Hazardous to the aquatic environment — Acute Hazard, Category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1 |
| Aquatic Chronic 2 | Hazardous to the aquatic environment — Chronic Hazard, Category 2 |
| Aquatic Chronic 4 | Hazardous to the aquatic environment — Chronic Hazard, Category 4 |

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| | |
|---------------|---|
| Asp. Tox. 1 | Aspiration hazard, Category 1 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Repr. 1B | Reproductive toxicity, Category 1B |
| Skin Corr. 1C | Skin corrosion/irritation, Category 1, Sub-Category 1C |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| Skin Sens. 1 | Skin sensitisation, Category 1 |
| H304 | May be fatal if swallowed and enters airways. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H360F | May damage fertility. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| 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. |

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.