

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

#### 1.1. Product identifier

|                               |  |
|-------------------------------|--|
| Product form                  | : Mixture                              |
| Product name                  | : Nordlub MC-Synto 4T-ESTER SAE 15W-50 |
| Product code                  | : 29166                                |
| Type of product               | : NORDLUB                              |
| Product group                 | : Blend                                |
| Other means of identification | : Art.-Nr.: 27008                      |

#### 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<br>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](mailto:info@nordlub.de) - [www.nordlub.de](http://www.nordlub.de)

#### 1.4. Emergency telephone number

Emergency number : +49 (0)4161 / 55 905 - 0

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Not classified

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

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

EUH-statements : EUH210 - Safety data sheet available on request.

#### 2.3. Other hazards

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

### 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]    |
|--|--|------------|--|
| Zinc bis[O-(-6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate) | CAS-No.: 93819-94-4<br>EC-No.: 298-577-9<br>REACH-no: 01-2119543726-33 | 0.1 – 0.99 | Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>Aquatic Chronic 2, H411 |

#### Specific concentration limits:

| Name   | Product identifier   | Specific concentration limits   |
|--|--|---|
| Zinc bis[O-(-6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate) | CAS-No.: 93819-94-4<br>EC-No.: 298-577-9<br>REACH-no: 01-2119543726-33 | ( 6.25 ≤C < 100) Skin Irrit. 2, H315<br>( 10 ≤C < 12.5) Eye Irrit. 2, H319<br>( 12.5 ≤C < 100) Eye Dam. 1, H318 |

Full text of H- and EUH-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.  
Symptoms/effects after skin contact : Not expected to present a significant skin hazard under anticipated conditions of normal use.  
Symptoms/effects after eye contact : Not expected to present a significant eye contact hazard under anticipated conditions of normal use.  
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.

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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.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

Additional information : 5 mg/m<sup>3</sup> 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).

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### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

No additional information available

### 8.2.2. Personal protection equipment

#### Personal protective equipment:

Safety glasses. Gloves.

#### Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

No additional information available

#### 8.2.2.2. Skin protection

#### Skin and body protection:

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

#### Hand protection:

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

#### 8.2.2.3. Respiratory protection

#### Respiratory protection:

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

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

No additional information available

## SECTION 9: Physical and chemical properties

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

|   |   |
|---|---|
| Physical state                                  | : Liquid  |
| Appearance                                      | : Oily liquid.  |
| Colour  | : red.  |
| 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                                     | : > 200 °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   | : 854 kg/m <sup>3</sup> @ 15°C                                |
| Solubility                                      | : Slightly soluble, the product remains on the water surface. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available   |

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|                      |                                 |
|----------------------|---------------------------------|
| Viscosity, kinematic | : 117 mm <sup>2</sup> /s @ 40°C |
| Viscosity, dynamic   | : No data available             |
| 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-(6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate) (93819-94-4) |                                      |
|--|--------------------------------------|
| LD50 oral rat  | 2600 mg/kg 67/548/EEG annex V        |
| LD50 dermal rabbit   | > 3160 mg/kg OECD 402                |
| LC50 Inhalation - Rat  | > 2 mg/l 1h - OECD 403 - read across |

|                                   |                  |
|-----------------------------------|------------------|
| 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 |
| Aspiration hazard                 | : Not classified |

### Nordlub MC-Synto 4T-ESTER SAE 15W-50

|                      |                               |
|----------------------|-------------------------------|
| Viscosity, kinematic | 117 mm <sup>2</sup> /s @ 40°C |
|----------------------|-------------------------------|

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### 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) : Not classified

#### Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate) (93819-94-4)

|                      |   |
|----------------------|---|
| LC50 - Fish [1]      | 4.5 mg/l OECD 203 (Oncorhynchus mykiss) 96h       |
| EC50 - Crustacea [1] | 5.4 mg/l OECD 202 (Daphnia magna) 48h             |
| EC50 72h - Algae [1] | 2.1 mg/l OECD 201 (Selenastrum capricornutum) 48h |

#### 12.2. Persistence and degradability

##### Nordlub MC-Synto 4T-ESTER SAE 15W-50

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

#### Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate) (93819-94-4)

Biodegradation : 1.5 % OECD 301B 28d

#### 12.3. Bioaccumulative potential

#### Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate) (93819-94-4)

Partition coefficient n-octanol/water (Log Pow) : 0.9 @23°C

#### 12.4. Mobility in soil

#### Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate) (93819-94-4)

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 / IMDG / IATA / ADN / RID

#### 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

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### 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 |
| 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

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### 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

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

##### 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 : Zinc bis[O-(-6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate) is listed

SZW-lijst van mutagene stoffen : Zinc bis[O-(-6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate) is listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : None of the components are listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

###### Denmark

Danish National Regulations : Pregnant/breastfeeding women working with the product must not be in direct contact with the product

###### Switzerland

Storage class (LK) : LK 10/12 - Liquids

#### 15.2. Chemical safety assessment

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

### SECTION 16: Other information

| Indication of changes |  |          |          |
|-----------------------|--|----------|----------|
| Section               | Changed item                           | Change   | Comments |
|                       | Revision date                          | Modified |          |
|                       | Supersedes                             | Modified |          |
| 3                     | Composition/information on ingredients | Modified |          |

#### 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 |



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| Abbreviations and acronyms: |  |
|-----------------------------|--|
|                             | 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 Chronic 2                   | Hazardous to the aquatic environment – Chronic Hazard, Category 2 |
| EUH210                              | Safety data sheet available on request.                           |
| Eye Dam. 1                          | Serious eye damage/eye irritation, Category 1                     |
| Eye Irrit. 2                        | Serious eye damage/eye irritation, Category 2                     |
| H315                                | Causes skin irritation.   |
| H318                                | Causes serious eye damage.  |
| H319                                | Causes serious eye irritation.                                    |
| H411                                | Toxic to aquatic life with long lasting effects.                  |
| Skin Irrit. 2                       | Skin corrosion/irritation, Category 2                             |

Safety Data Sheet (SDS), EU

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.