

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : TURMOGREASE N 3  
Revision date : 18.11.2016  
Print date : 18.11.2016

Version (Revision) : 2.0.0 (1.0.0)

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

### 1.1 Product identifier

TURMOGREASE N 3

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

#### Relevant identified uses

##### Product Categories [PC]

PC24 - Lubricants, greases, release products

### 1.3 Details of the supplier of the safety data sheet

#### Supplier (manufacturer/importer/only representative/downstream user/distributor)

Lubricant Consult GmbH

Street : Gutenbergstraße 13

Postal code/city : 63477 MAINTAL

Telephone : 06109/7650-0

Telefax : 06109/7650-51

Information contact : Environment, Health & Safety: Dr. Rüdiger Hofmann

### 1.4 Emergency telephone number

06109/7650-0

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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

None

### 2.2 Label elements

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

##### Special rules for supplemental label elements for certain mixtures

EUH210 Safety data sheet available on request.

### 2.3 Other hazards

None

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Hazardous ingredients

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates ; REACH registration No. : 01-2119976322-36-xxxx ; EC No. : 279-632-6; CAS No. : 80939-62-4

Weight fraction :  $\geq 1 - < 5 \%$

Classification 1272/2008 [CLP] : Skin Irrit. 2 ; H315 Eye Irrit. 2 ; H319 Aquatic Chronic 2 ; H411

2-Ethylhexyl zinc dithiophosphate ; REACH registration No. : 01-2119493635-27-xxxx ; EC No. : 224-235-5; CAS No. : 4259-15-8

Weight fraction :  $\geq 1 - < 5 \%$

Classification 1272/2008 [CLP] : Eye Dam. 1 ; H318 Aquatic Chronic 2 ; H411

#### Further ingredients

SHC (Synthetic hydrocarbon)

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Ester oil

Polyurea

Additives not to declare

## Additional information

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

When in doubt or if symptoms are observed, get medical advice.

#### Following inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

#### In case of skin contact

Remove contaminated, saturated clothing immediately. Wash immediately with: Water and soap In case of skin irritation, consult a physician.

#### After eye contact

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

#### After ingestion

Rinse mouth immediately and drink plenty of water. Let water be drunken in little sips (dilution effect). Get medical advice/attention if you feel unwell.

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

No information available.

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

None

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Dry extinguishing powder. Carbon dioxide (CO<sub>2</sub>). ABC-powder. BC-powder. Foam. Dry sand.

#### Unsuitable extinguishing media

Water. Strong water jet. High power water jet.

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

Hazardous combustion products: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Burning produces heavy smoke.

### 5.3 Advice for firefighters

Use suitable breathing apparatus.

### 5.4 Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

Special danger of slipping by leaking/spilling product.

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## 6.1 Personal precautions, protective equipment and emergency procedures

None

## 6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Ensure waste is collected and contained. Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

## 6.3 Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal. Soak up inert absorbent and dispose as waste requiring special attention. Suitable material for taking up: Universal binder Kieselguhr

## 6.4 Reference to other sections

None

## SECTION 7: Handling and storage



### 7.1 Precautions for safe handling

#### Protective measures

It is recommended to design all work processes always so that the following is excluded: Generation/formation of mist. Avoid: Inhalation of vapours or spray/mists. Skin contact, Eye contact. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Hints on joint storage

Storage class : 11

Storage class (TRGS 510) : 11

#### Keep away from

Food and feedingstuffs

#### Further information on storage conditions

Keep/Store only in original container. Keep container tightly closed. Protect against UV-radiation/sunlight Humidity. Contact with air/oxygen. Dust deposits

### 7.3 Specific end use(s)

None

## SECTION 8: Exposure controls/personal protection

Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and after work. Take the precautions customary when handling chemicals. Change contaminated, saturated clothing. Keep away from sources of ignition. - No smoking.

### 8.1 Control parameters

#### DNEL/DMEL and PNEC values

##### DNEL/DMEL

|                      |                                                                                 |
|----------------------|---------------------------------------------------------------------------------|
| Limit value type :   | DNEL worker (local) ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 ) |
| Exposure route :     | Dermal                                                                          |
| Exposure frequency : | Short-term (acute)                                                              |
| Limit value :        | = 0,09 mg/cm <sup>2</sup>                                                       |
| Limit value type :   | DNEL worker (local) ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 ) |
| Exposure route :     | Inhalation                                                                      |
| Exposure frequency : | Short-term (acute)                                                              |

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|                      |                                                                                    |
|----------------------|------------------------------------------------------------------------------------|
| Limit value :        | = 0,42 ppm                                                                         |
| Limit value type :   | DNEL worker (local) ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )    |
| Exposure route :     | Dermal                                                                             |
| Exposure frequency : | Long-term                                                                          |
| Limit value :        | = 0,09 mg/cm <sup>2</sup> /d                                                       |
| Limit value type :   | DNEL worker (local) ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )    |
| Exposure route :     | Inhalation                                                                         |
| Exposure frequency : | Long-term (repeated)                                                               |
| Limit value :        | = 0,07 ppm                                                                         |
| Limit value type :   | DNEL worker (systemic) ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 ) |
| Exposure route :     | Dermal                                                                             |
| Exposure frequency : | Short-term (acute)                                                                 |
| Limit value :        | = 0,14 mg/kg/d                                                                     |
| Limit value type :   | DNEL worker (systemic) ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 ) |
| Exposure route :     | Inhalation                                                                         |
| Exposure frequency : | Short-term (acute)                                                                 |
| Limit value :        | = 0,42 ppm                                                                         |
| Limit value type :   | DNEL worker (systemic) ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 ) |
| Exposure route :     | Dermal                                                                             |
| Exposure frequency : | Long-term                                                                          |
| Limit value :        | = 9,59 mg/kg                                                                       |
| Limit value type :   | DNEL worker (systemic) ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 ) |
| Exposure route :     | Inhalation                                                                         |
| Exposure frequency : | Long-term (repeated)                                                               |
| Limit value :        | = 0,21 ppm                                                                         |

### PNEC

|                    |                                                                                               |
|--------------------|-----------------------------------------------------------------------------------------------|
| Limit value type : | PNEC air ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )                          |
| Limit value :      | = 7,1 mg/m <sup>3</sup>                                                                       |
| Limit value type : | PNEC aquatic, freshwater ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )          |
| Limit value :      | = 0,004 mg/l                                                                                  |
| Limit value type : | PNEC aquatic, marine water ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )        |
| Limit value :      | = 0,0046 mg/l                                                                                 |
| Limit value type : | PNEC sediment, freshwater ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )         |
| Limit value :      | = 0,0701 mg/kg                                                                                |
| Limit value type : | PNEC sediment, marine water ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )       |
| Limit value :      | = 0,00701 mg/kg                                                                               |
| Limit value type : | PNEC Soil ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )                         |
| Limit value :      | = 0,0548 mg/kg                                                                                |
| Limit value type : | PNEC sewage treatment plant (STP) ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 ) |
| Limit value :      | = 3,8 mg/l                                                                                    |

## 8.2 Exposure controls

### Personal protection equipment

#### Eye/face protection

Eye protection: not required. Avoid: Eye contact.

#### Recommended eye protection articles

DIN EN 166

#### Skin protection

##### Hand protection

Hand protection is not required

**By long-term hand contact :** Wear suitable gloves.

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Trade name : TURMOGREASE N 3  
Revision date : 18.11.2016  
Print date : 18.11.2016

Version (Revision) : 2.0.0 (1.0.0)

**Suitable material :** NBR (Nitrile rubber) Butyl caoutchouc (butyl rubber)

**Recommended glove articles :** DIN EN 374 DIN EN 420

## Respiratory protection

No special measures are necessary. Avoid: Inhalation of vapours or spray/mists

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Colour :** beige

#### Safety relevant basis data

|                                                  |              |   |                        |
|--------------------------------------------------|--------------|---|------------------------|
| <b>Physical state :</b>                          |              |   | pasty                  |
| <b>Initial boiling point and boiling range :</b> | ( 1013 hPa ) | > | 300 °C                 |
| <b>Decomposition temperature :</b>               | ( 1013 hPa ) | > | 200 °C                 |
| <b>Flash point :</b>                             | ( 1013 hPa ) | > | 200 °C                 |
| <b>Vapour pressure :</b>                         | ( 50 °C )    | < | 0,1 hPa                |
| <b>Density :</b>                                 | ( 20 °C )    | = | 0,87 g/cm <sup>3</sup> |

### 9.2 Other information

None

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No information available.

### 10.2 Chemical stability

The product is stable.

### 10.3 Possibility of hazardous reactions

Strong acid. Strong alkali.

### 10.4 Conditions to avoid

No information available.

### 10.5 Incompatible materials

Oxidising agent, strong.

### 10.6 Hazardous decomposition products

Carbon monoxide (CO). Nitrogen oxides (NOx). Sulphur dioxide (SO<sub>2</sub>). Gases/vapours, harmful

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

By analogy.

#### Acute effects

##### Acute oral toxicity

|                  |              |
|------------------|--------------|
| Parameter :      | LD50         |
| Exposure route : | Oral         |
| Species :        | Rat          |
| Effective dose : | > 5000 mg/kg |

##### Acute dermal toxicity

|                  |        |
|------------------|--------|
| Parameter :      | LD50   |
| Exposure route : | Dermal |
| Species :        | Rabbit |

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Version (Revision) : 2.0.0 (1.0.0)

Effective dose : > 5000 mg/kg

## Irritant and corrosive effects

### Primary irritation to the skin

Parameter : Primary irritation to the skin ( Amines, C11-14-branched alkyl, monoheptyl and diheptyl phosphates ; CAS No. : 80939-62-4 )  
Species : Rabbit  
Result : Irritant  
Method : OECD 404  
Parameter : Primary irritation to the skin ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )  
Species : Rabbit  
Result : Not an irritant

### Irritation to eyes

Parameter : Irritation to eyes ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )  
Species : Rabbit  
Result : Risk of serious damage to eyes  
Method : OECD 405  
Parameter : Irritation to eyes ( Amines, C11-14-branched alkyl, monoheptyl and diheptyl phosphates ; CAS No. : 80939-62-4 )  
Species : Rabbit  
Result : Irritant  
Method : OECD 405

## Sensitisation

### In case of skin contact

Parameter : Skin sensitisation ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )  
Species : Guinea pig  
Result : Not sensitising.  
Method : OECD 406

## CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

### Carcinogenicity

Parameter : Carcinogenicity ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )  
Test result : Negative.

### Germ cell mutagenicity

#### In vitro mutagenicity

Parameter : In vitro mutagenicity ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )  
Test result : Ames test negative.

#### In vivo mutagenicity

Parameter : In vivo mutagenicity ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )  
Test result : Negative.

### Reproductive toxicity

#### Developmental toxicity/teratogenicity

##### One generation reproduction toxicity test

Parameter : One generation reproduction toxicity test ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )  
Exposure route : Oral  
Species : Rat  
Effective dose : = 30 mg/kg  
Method : OECD 421

## SECTION 12: Ecological information

### 12.1 Toxicity

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### Aquatic toxicity

#### Acute (short-term) fish toxicity

Parameter : LC50 ( Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates ; CAS No. : 80939-62-4 )  
Species : Oncorhynchus mykiss (Rainbow trout)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : = 5,5 mg/l  
Exposure time : 96 h  
Parameter : LC50 ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )  
Species : Oncorhynchus mykiss (Rainbow trout)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : 1 - 10 mg/l

#### Acute (short-term) daphnia toxicity

Parameter : EC50 ( Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates ; CAS No. : 80939-62-4 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : = 1,2 mg/l  
Exposure time : 48 h  
Method : OECD 202  
Parameter : EC50 ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 1 - 10 mg/l  
Exposure time : 48 h  
Method : OECD 202

#### Acute (short-term) algae toxicity

Parameter : EC50 ( Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates ; CAS No. : 80939-62-4 )  
Species : Selenastrum capricornutum  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : > 10 mg/l  
Exposure time : 72 h  
Parameter : EC50 ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )  
Species : Desmodesmus subspicatus  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : > 240 mg/l  
Exposure time : 72 h

#### Bacteria toxicity

Parameter : EC50 ( 2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8 )  
Species : Pseudomonas putida  
Evaluation parameter : Bacteria toxicity  
Effective dose : = 380 mg/l  
Exposure time : 16 h  
Method : OECD 209

### 12.2 Persistence and degradability

#### Biodegradation

Not readily biodegradable (according to OECD criteria).

### 12.3 Bioaccumulative potential

No information available.

### 12.4 Mobility in soil

No information available.

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Version (Revision) : 2.0.0 (1.0.0)

## 12.5 Results of PBT and vPvB assessment

No information available.

## 12.6 Other adverse effects

No information available.

## 12.7 Additional ecotoxicological information

None

## 12.8 Overall evaluation

If product enters soil, it will be mobile and may contaminate groundwater. In accordance with the required stability the product is poorly biodegradable.

## SECTION 13: Disposal considerations

Dispose according to legislation. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

### 13.1 Waste treatment methods

Send to a hazardous waste incinerator facility under observation of official regulations. Collect the waste separately. Evidence for disposal must be provided.

## SECTION 14: Transport information

### 14.1 UN number

No dangerous good in sense of these transport regulations.

### 14.2 UN proper shipping name

No dangerous good in sense of these transport regulations.

### 14.3 Transport hazard class(es)

No dangerous good in sense of these transport regulations.

### 14.4 Packing group

No dangerous good in sense of these transport regulations.

### 14.5 Environmental hazards

No dangerous good in sense of these transport regulations.

### 14.6 Special precautions for user

None

## SECTION 15: Regulatory information

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

#### National regulations

##### Water hazard class (WGK)

Class : 1 (Slightly hazardous to water) Classification according to VwVwS

### 15.2 Chemical safety assessment

No information available.

## SECTION 16: Other information

### 16.1 Indication of changes

02. Label elements · 03. Hazardous ingredients

### 16.2 Abbreviations and acronyms



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None

## 16.3 Key literature references and sources for data

None

## 16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

No information available.

## 16.5 Relevant H- and EUH-phrases (Number and full text)

|      |                                                  |
|------|--------------------------------------------------|
| H315 | Causes skin irritation.                          |
| H318 | Causes serious eye damage.                       |
| H319 | Causes serious eye irritation.                   |
| H411 | Toxic to aquatic life with long lasting effects. |

## 16.6 Training advice

None

## 16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.