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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 02.02.2018 / 0018

Replacing version dated / version: 07.12.2016 / 0017

Valid from: 02.02.2018 PDF print date: 05.02.2018 GETRIEBEOIL-ADDITIV 20 g

Art.: 1040

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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 Relevant identified uses of the substance or mixture:

Additives

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

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LIQUI MOLY GmbH, Jerg-Wieland-Str. 4, 89081 Ulm-Lehr, Germany Phone:(+49) 0731-1420-0, Fax:(+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (LMR)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)
Hazard class Hazard category Hazard statement

Aquatic Chronic 2 H411-Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)



H411-Toxic to aquatic life with long lasting effects.



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P273-Avoid release to the environment.

P501-Dispose of contents / container to special waste collection point.

EUH208-Contains Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives, Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched). May produce an allergic reaction.

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

Product can compose a film on the water surface, which can prevent oxygen exchange.

SECTION 3: Composition/information on ingredients

3.1 Substance

n.a. **3.2 Mixture**

| Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl | Substance with specific conc. limit(s) acc. to REACh-registration |
|--|---|
| (branched) | |
| Registration number (REACH) | 01-2119493620-38-XXXX |
| Index | |
| EINECS, ELINCS, NLP | 931-384-6 (REACH-IT List-No.) |
| CAS | |
| content % | 2,5-<5 |
| Classification according to Regulation (EC) 1272/2008 (CLP) | Acute Tox. 4, H302 |
| | Skin Sens. 1, H317 |
| | Eye Dam. 1, H318 |
| | Aquatic Chronic 2, H411 |

| (Z)-octadec-9-enylamine | |
|---|--|
| Registration number (REACH) | |
| Index | 612-283-00-3 |
| EINECS, ELINCS, NLP | 204-015-5 |
| CAS | 112-90-3 |
| content % | 0,25-<1 |
| Classification according to Regulation (EC) 1272/2008 (CLP) | Acute Tox. 4, H302 |
| | Asp. Tox. 1, H304 |
| | STOT SE 3, H335 |
| | STOT RE 2, H373 (gastrointestinal tract, liver, immune system) |
| | Skin Corr. 1B, H314 |
| | Aquatic Acute 1, H400 (M=10) |
| | Aquatic Chronic 1, H410 (M=10) |
| | Eye Dam. 1, H318 |

| Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives | SVHC-substance |
|---|-------------------------------|
| Registration number (REACH) | 01-2119971727-23-XXXX |
| Index | |
| EINECS, ELINCS, NLP | 939-460-0 (REACH-IT List-No.) |
| CAS | |
| content % | 0,1-<1 |



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Classification according to Regulation (EC) 1272/2008 (CLP)

Flam. Liq. 3, H226
Skin Irrit. 2, H315
Eye Dam. 1, H318
Skin Sens. 1B, H317
Aquatic Chronic 3, H412

Impurities, test data and additional information may have been taken into account in classifying and labelling the product.

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

Respiratory arrest - Artificial respiration apparatus necessary.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

Headaches

Dizziness

Nausea

Fatigue Irritant to mucosa of the nose and throat

Allergic reaction

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media

COS

Dry extinguisher

Enam

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Oxides of sulphur

Oxides of phosphorus

Aldehydes .

Toxic pyrolysis products.



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Danger of bursting (explosion) when heated

In case of spreading near the ground, flashback to distance sources of ignition is possible.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire Full protection, if necessary. Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient supply of air.

Avoid inhalation, and contact with eyes or skin.

If applicable, caution - risk of slipping.

6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent from entering drainage system.

Prevent surface and ground-water infiltration, as well as ground penetration.

If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent) and dispose of according to Section 13.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.

Avoid contact with eyes or skin.

Do not heat to temperatures close to flash point.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.

Store product closed and only in original packing.

Not to be stored in gangways or stair wells.

Do not store with oxidizing agents.

Solvent resistant floor

Store in a well ventilated place.

Protect from direct sunlight and warming.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters



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| | Oil mist, mineral | Content %: |
|------------------------------|---|------------|
| WEL-TWA: 5 mg/m3 (ACGIH) | WEL-STEL: 10 mg/m3 (ACGIH) | |
| Monitoring procedures: | - Draeger - Oil 10/a-P (67 28 371) | |
| | - Draeger - Oil Mist 1/a (67 33 031) | |
| BMGV: | Other information: | |
| Chemical Name | Malukalanuna aliaudakida | Content %: |
| Chemical Name | Molybdenum disulphide | Content %. |
| WEL-TWA: 10 mg/m3 (molybdenu | ım insoluble WEL-STEL: 20 mg/m3 (molybdenum insoluble | |
| compounds, as Mo) | compounds, as Mo) | |
| Monitoring procedures: | | |
| BMGV: | Other information: | |
| Chemical Name | Molybdenum compounds, insoluble | Content %: |
| © Chemical Name | Morybaeriam compounds, insoluble | Content %. |
| WEL-TWA: 10 mg/m3 (as Mo) | WEL-STEL: 20 mg/m3 (as Mo) | |
| Monitoring procedures: | | |
| BMGV: | Other information: | |

- WEL-TWA = Workplace Exposure Limit Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).
- (8) = Inhalable fraction (2017/164/EU). (9) = Respirable fraction (2017/164/EU). | WEL-STEL = Workplace Exposure Limit Short-term exposure limit (15-minute reference period).
- (8) = Inhalable fraction (2017/164/EU). (9) = Respirable fraction (2017/164/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
- ** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. BS EN 14042.

BS EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feeding stuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles (EN 166) with side protection, with danger of projections.

Skin protection - Hand protection:

Protective gloves, oil resistant (EN 374)

If applicable

Protective nitrile gloves (EN 374)

Permeation time (penetration time) in minutes:

>= 60

Minimum layer thickness in mm:

0,4

Protective hand cream recommended.

The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:



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Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection: Normally not necessary. If OES or MEL is exceeded.

Filter A2 P2 (EN 14387), code colour brown, white

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:

Colour:

Odour:

Odour threshold:

Liquid
Black
Characteristic
Not determined

pH-value: n.a.

Melting point/freezing point:

Initial boiling point and boiling range:

Flash point:

Not determined

Not determined

>200 °C

Evaporation rate: Not determined Flammability (solid, gas): Not determined Lower explosive limit: Not determined Upper explosive limit: Not determined Vapour pressure: Not determined Vapour density (air = 1): Not determined Density: 1 g/ml (20°C) Bulk density: Not determined Solubility(ies): Not determined Water solubility: Insoluble

Water solublity:
Partition coefficient (n-octanol/water):
Not determined
Auto-ignition temperature:
Not determined
Decomposition temperature:
Viscosity:
-380 mPas
Explosive properties:
Not determined

Oxidising properties: No

9.2 Other information

Miscibility:

Fat solubility / solvent:

Conductivity:

Not determined

Not determined

Surface tension:

Not determined

Not determined

Not determined

Not determined

Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

The product has not been tested.



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10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known.

10.4 Conditions to avoid

Heating, open flame, ignition sources

10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
|----------------------------------|----------|-------|-------|----------|-------------|-------------------|
| Acute toxicity, by oral route: | ATE | >2000 | mg/kg | | | calculated value |
| Acute toxicity, by dermal route: | | | | | | n.d.a. |
| Acute toxicity, by inhalation: | | | | | | n.d.a. |
| Skin corrosion/irritation: | | | | | | n.d.a. |
| Serious eye damage/irritation: | | | | | | Not irritant |
| Respiratory or skin | | | | | | No (skin contact) |
| sensitisation: | | | | | | |
| Germ cell mutagenicity: | | | | | | n.d.a. |
| Carcinogenicity: | | | | | | n.d.a. |
| Reproductive toxicity: | | | | | | n.d.a. |
| Specific target organ toxicity - | | | | | | n.d.a. |
| single exposure (STOT-SE): | | | | | | |
| Specific target organ toxicity - | | | | | | n.d.a. |
| repeated exposure (STOT-RE): | | | | | | |
| Aspiration hazard: | | | | | | n.d.a. |
| Symptoms: | | | | | | n.d.a. |
| Other information: | | | | | | Classification |
| | | | | | | according to |
| | | | | | | calculation |
| | | | | | | procedure. |

| Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14- | | | | | | | | | |
|---|----------|-------|-------|----------|-----------------------|--------------|--|--|--|
| alkyl (branched) | | | | | | | | | |
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes | | | |
| Acute toxicity, by oral route: | LD50 | >2000 | mg/kg | Rat | OECD 401 (Acute Oral | | | | |
| | | | | | Toxicity) | | | | |
| Skin corrosion/irritation: | | | | Rabbit | OECD 404 (Acute | Not irritant | | | |
| | | | | | Dermal | | | | |
| | | | | | Irritation/Corrosion) | | | | |
| Serious eye damage/irritation: | | | | Rabbit | | Corrosive | | | |
| Respiratory or skin | | | | Mouse | OECD 429 (Skin | Sensitising | | | |
| sensitisation: | | | | | Sensitisation - Local | | | | |
| | | | | | Lymph Node Assay) | | | | |

| (Z)-octadec-9-enylamine | | | | | | |
|--------------------------------|----------|-------|-------|----------|-------------|-----------------|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by oral route: | LD50 | 1689 | mg/kg | Rat | | |
| Skin corrosion/irritation: | | | | | | Corrosive |
| Serious eye damage/irritation: | | | | | | Risk of serious |
| | | | | | | damage to eyes. |

Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives



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| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
|----------------------------------|----------|-------|-------|----------|------------------|------------|
| Acute toxicity, by oral route: | LD50 | <5000 | mg/kg | Rat | | |
| Acute toxicity, by dermal route: | LD50 | >2000 | mg/kg | Rat | OECD 402 (Acute | |
| | | | | | Dermal Toxicity) | |
| Skin corrosion/irritation: | | | | Rabbit | | Irritant |
| Serious eye damage/irritation: | | | | Rabbit | | Eye Dam. 1 |

| Molybdenum disulphide | | | | | | | |
|----------------------------------|----------|-------|----------|------------|------------------------|-------------------|--|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes | |
| Acute toxicity, by oral route: | LD50 | >2000 | mg/kg | Rat | | | |
| Acute toxicity, by dermal route: | LD50 | >2000 | mg/kg | Rat | | | |
| Acute toxicity, by inhalation: | LC50 | >2820 | mg/m3/4h | Rat | | | |
| Skin corrosion/irritation: | | | | Rabbit | | Not irritant | |
| Serious eye damage/irritation: | | | | Rabbit | | Mild irritant | |
| Respiratory or skin | | | | Guinea pig | OECD 406 (Skin | Not sensitizising | |
| sensitisation: | | | | | Sensitisation) | | |
| Respiratory or skin | | | | | · | No (skin contact) | |
| sensitisation: | | | | | | | |
| Germ cell mutagenicity: | | | | | OECD 471 (Bacterial | Negative | |
| | | | | | Reverse Mutation Test) | | |
| Symptoms: | | | | | | mucous | |
| | | | | | | membrane | |
| | | | | | | irritation | |

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification). See section 2.

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|----------------------------|----------|------|-------|------|----------|-------------|------------------|
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| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish: | | | | | | | n.d.a. |
| 12.1. Toxicity to daphnia: | | | | | | | n.d.a. |
| 12.1. Toxicity to algae: | | | | | | | n.d.a. |
| 12.2. Persistence and | | | | | | | Mechanical |
| degradability: | | | | | | | precipitation |
| | | | | | | | possible. |
| 12.3. Bioaccumulative | | | | | | | n.d.a. |
| potential: | | | | | | | |
| 12.4. Mobility in soil: | | | | | | | n.d.a. |
| 12.5. Results of PBT | | | | | | | n.d.a. |
| and vPvB assessment | | | | | | | |
| 12.6. Other adverse | | | | | | | n.d.a. |
| effects: | | | | | | | |
| Other information: | | | | | | | According to the |
| | | | | | | | recipe, contains |
| | | | | | | | no AOX. |

| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
|----------------------------|-----------|------|-------|------|---------------------------|--|-------|
| 12.1. Toxicity to fish: | NOEC/NOEL | 96h | 3,2 | mg/l | Oncorhynchus mykiss | OECD 203 (Fish, Acute Toxicity Test) | |
| 12.1. Toxicity to daphnia: | EL50 | 48h | ~91,4 | mg/l | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisation Test) | |
| 12.1. Toxicity to algae: | EC50 | 96h | 6,4 | mg/l | Selenastrum capricornutum | OECD 201 (Alga, Growth Inhibition Test) | |



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| 12.1. Toxicity to algae: | NOEC/NOEL | 96h | 1,7 | mg/l | Selenastrum capricornutum | OECD 201 (Alga, Growth Inhibition Test) |
|--------------------------------------|-----------|-----|-------|------|---------------------------|--|
| 12.2. Persistence and degradability: | | 28d | 7,4 | % | activated sludge | OECD 301 B (Ready Biodegradability - Co2 Evolution Test) |
| Toxicity to bacteria: | EC50 | 3h | ~2433 | mg/l | activated sludge | OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)) |

| (Z)-octadec-9-enylamine | | | | | | | |
|----------------------------|----------|------|-------|------|----------|-------------|-------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish: | LC50 | 96h | 0,11 | mg/l | | | |
| 12.1. Toxicity to daphnia: | EC50 | 48h | 0,011 | mg/l | | | |
| 12.1. Toxicity to algae: | EC50 | 96h | 0,03 | mg/l | | | |
| 12.2. Persistence and | | 28d | 44-66 | | | | |
| degradability: | | | | | | | |
| 12.3. Bioaccumulative | | | 2,7 | | | | 0,1d |
| potential: | | | | | | | |

| Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives | | | | | | | |
|---|----------|------|-------|------|----------------------------------|--|-------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish: | LL50 | 96h | 26 | mg/l | Oncorhynchus mykiss | OECD 203 (Fish, Acute Toxicity Test) | |
| 12.1. Toxicity to daphnia: | EL50 | 48h | 75 | mg/l | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisation Test) | |
| 12.1. Toxicity to algae: | LC0 | 72h | 25-71 | mg/l | Pseudokirchneriell a subcapitata | OEĆD 201 (Alga, Growth Inhibition Test) | |
| 12.2. Persistence and degradability: | DOC | 28d | 17,4 | % | | OECD 301 B (Ready Biodegradability - Co2 Evolution Test) | |
| 12.3. Bioaccumulative potential: | Log Kow | | >9,4 | | | | |

| Molybdenum disulphide | | | | | | | |
|----------------------------|----------|------|-------------------|------|------------------------|-------------|-------------------------------------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish: | LC50 | 96h | 781- 1339 | mg/l | Oncorhynchus mykiss | | Analogous conclusion(mg Mo/L) |
| 12.1. Toxicity to daphnia: | LC50 | 48h | 1680,4- 1776,6 | mg/l | Daphnia magna | | Analogous conclusion(mg Mo/L) |
| 12.1. Toxicity to daphnia: | LC50 | 48h | 2729,4 | mg/l | Daphnia magna | | Analogous conclusion(mg Mo/L) |
| 12.1. Toxicity to daphnia: | LC50 | 48h | 2847,5 | mg/l | Daphnia magna | | Analogous conclusion(mg Mo/L) |



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| 12.1. Toxicity to daphnia: | LC50 | 48h | 130,9 | mg/l | Daphnia magna | Analogous conclusion(mg Mo/L) |
|----------------------------|-------|-----|-------------------|------|-------------------------------------|-------------------------------------|
| 12.1. Toxicity to daphnia: | LC50 | 48h | 1005,5- 1024,6 | mg/l | Ceriodaphnia spec. | Analogous conclusion(mg Mo/L) |
| 12.1. Toxicity to algae: | ErC50 | 72h | 289,2- 390,9 | mg/l | Pseudokirchneriell a subcapitata | Analogous conclusion(mg Mo/L) |
| 12.1. Toxicity to fish: | LC50 | 96h | 609- 681,4 | mg/l | Pimephales promelas | Analogous conclusion(mg Mo/L) |
| 12.1. Toxicity to fish: | LC50 | 96h | 7600 | mg/l | Oncorhynchus mykiss | Analogous conclusion(mg Mo/L) |
| Water solubility: | | | <0,1 | mg/l | | @20°C |

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

Soaked polluted cloths, paper or other organic materials represent a fire hazard and should be controlled, collected and disposed of. EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be

allocated under certain circumstances. (2014/955/EU)

13 02 05 mineral-based non-chlorinated engine, gear and lubricating oils

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

Implement substance recycling.

E.g. suitable incineration plant.

For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

Do not perforate, cut up or weld uncleaned container.

SECTION 14: Transport information

General statements

14.1. UN number: 3082

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (OLEYLAMINE)

14.3. Transport hazard class(es):914.4. Packing group:IIIClassification code:M6LO:5 L

14.5. Environmental hazards: environmentally hazardous

Tunnel restriction code:

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (OLEYLAMINE)

14.3. Transport hazard class(es):914.4. Packing group:IIIEmS:F-A, S-FMarine Pollutant:Yes







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14.5. Environmental hazards:

environmentally hazardous

Transport by air (IATA)

14.2. UN proper shipping name:

Environmentally hazardous substance, liquid, n.o.s. (OLEYLAMINE)

14.3. Transport hazard class(es):

14.4. Packing group:

14.5. Environmental hazards:

III

environmentally hazardous



14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained. All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

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

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.

SECTION 15: Regulatory information

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

Observe restrictions:

Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered

according to storage, handling etc.):

| Hazard categories | Notes to Annex I | Qualifying quantity (tonnes) of | Qualifying quantity (tonnes) of |
|-------------------|------------------|--------------------------------------|--------------------------------------|
| | | dangerous substances as | dangerous substances as |
| | | referred to in Article 3(10) for the | referred to in Article 3(10) for the |
| | | application of - Lower-tier | application of - Upper-tier |
| | | requirements | requirements |
| E2 | | 200 | 500 |

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC):

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections:

3, 4, 11, 12, 15

Employee training in handling dangerous goods is required.

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

| Classification in accordance with regulation (EC) No. 1272/2008 (CLP) | Evaluation method used |
|---|--|
| Aquatic Chronic 2, H411 | Classification according to calculation procedure. |

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H226 Flammable liquid and vapour.



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H317 May cause an allergic skin reaction.

H302 Harmful if swallowed.

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.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

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.

Aquatic Chronic — Hazardous to the aquatic environment - chronic

Acute Tox. — Acute toxicity - oral

Skin Sens. — Skin sensitization

Eye Dam. — Serious eye damage

Asp. Tox. — Aspiration hazard

STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation

STOT RE — Specific target organ toxicity - repeated exposure

Skin Corr. — Skin corrosion

Aquatic Acute — Hazardous to the aquatic environment - acute

Flam. Liq. — Flammable liquid

Skin Irrit. — Skin irritation

Any abbreviations and acronyms used in this document:

AC Article Categories

acc., acc. to according, according to

ACGIH American Conference of Governmental Industrial Hygienists

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the

International Carriage of Dangerous Goods by Road)

AOEL Acceptable Operator Exposure Level

AOX Adsorbable organic halogen compounds

approx. approximately

Art., Art. no. Article number

ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)

BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)

BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BCF Bioconcentration factor

BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)

BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)

BMGV Biological monitoring guidance value (EH40, UK)

BOD Biochemical oxygen demand

BSEF Bromine Science and Environmental Forum

bw body weight

CAS Chemical Abstracts Service

CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids

CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques

CIPAC Collaborative International Pesticides Analytical Council

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances

and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

COD Chemical oxygen demand

CTFA Cosmetic, Toiletry, and Fragrance Association

DMEL Derived Minimum Effect Level

DNEL Derived No Effect Level

DOC Dissolved organic carbon

DT50 Dwell Time - 50% reduction of start concentration

DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)

dw dry weight



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e.g. EC for example (abbreviation of Latin 'exempli gratia'), for instance

European Community ECHA European Chemicals Agency EEA European Economic Area **European Economic Community** EEC

European Inventory of Existing Commercial Chemical Substances **EINECS**

ELINCS European List of Notified Chemical Substances

European Norms FΝ

EPA United States Environmental Protection Agency (United States of America)

ERC Environmental Release Categories

ES Exposure scenario etc. et cetera EU European Union **EWC** European Waste Catalogue

Fax number Fax. gen. general

Globally Harmonized System of Classification and Labelling of Chemicals GHS

GWP Global warming potential

HET-CAM Hen's Egg Test - Chorionallantoic Membrane

HGWP Halocarbon Global Warming Potential IARC International Agency for Research on Cancer IATA International Air Transport Association

Intermediate Bulk Container IRC.

IBC (Code) International Bulk Chemical (Code)

Inhibitory concentration IC IMDG-code

International Maritime Code for Dangerous Goods

including, inclusive incl.

IUCLID International Uniform ChemicaL Information Database LC lethal concentration

LC50 lethal concentration 50 percent kill LCLo lowest published lethal concentration LD Lethal Dose of a chemical

LD50 Lethal Dose, 50% kill LDLo Lethal Dose Low

LOAEL Lowest Observed Adverse Effect Level LOEC Lowest Observed Effect Concentration

LOEL Lowest Observed Effect Level

LQ **Limited Quantities**

MARPOL International Convention for the Prevention of Marine Pollution from Ships

not applicable n.a. not available n.av. not checked n.c. no data available

NIOSH National Institute of Occupational Safety and Health (United States of America)

NOAECNo Observed Adverse Effective Concentration

NOAEL No Observed Adverse Effect Level NOEC No Observed Effect Concentration NOEL No Observed Effect Level ODP Ozone Depletion Potential

OECD Organisation for Economic Co-operation and Development

org. organic

polycyclic aromatic hydrocarbon PAH **PBT** persistent, bioaccumulative and toxic

PC Chemical product category

PΕ Polyethylene

PNEC Predicted No Effect Concentration POCP Photochemical ozone creation potential

ppm parts per million PROC Process category PTFE Polytetrafluorethylene

REACHRegistration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration,

Evaluation, Authorisation and Restriction of Chemicals)



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REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List

Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

Self-Accelerating Decomposition Temperature SADT

Structure Activity Relationship SAR

SU Sector of use

SVHC Substances of Very High Concern

Tel. Telephone

ThOD Theoretical oxygen demand

TOC Total organic carbon

TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))

VOC Volatile organic compounds

very persistent and very bioaccumulative vPvB

WÉL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) WEL-TWA, WEL-STEL

reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).

WHO World Health Organization

wet weight wwt

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.

These statements were made by: Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

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