

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

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

1.1 Product identifier

Molygen 5W-50

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

Relevant identified uses of the substance or mixture:

Lubricant

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

LIQUI MOLY GmbH
Jerg-Wieland-Str. 4
89081 Ulm-Lehr
Tel.: (+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)
+1 872 5888271 (LMR)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

The mixture is not classified as dangerous in the terms of the Regulation (EC) 1272/2008 (CLP).

2.2 Label elements

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

EUH210-Safety data sheet available on request.

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 %).

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

SECTION 3: Composition/information on ingredients

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3.1 Substances

n.a.

3.2 Mixtures

| | |
|---|-----------------------|
| Distillates (petroleum), hydrotreated heavy paraffinic | |
| Registration number (REACH) | 01-2119484627-25-XXXX |
| Index | 649-467-00-8 |
| EINECS, ELINCS, NLP, REACH-IT List-No. | 265-157-1 |
| CAS | 64742-54-7 |
| content % | 1-<10 |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | Asp. Tox. 1, H304 |

| | |
|---|-----------------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | |
| Registration number (REACH) | 01-2119471299-27-XXXX |
| Index | 649-474-00-6 |
| EINECS, ELINCS, NLP, REACH-IT List-No. | 265-169-7 |
| CAS | 64742-65-0 |
| content % | 1-<10 |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | Asp. Tox. 1, H304 |

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.

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. Consult doctor immediately.

Danger of aspiration.

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.

The following may occur:

Irritation of the eyes

Irritation of the skin.

Drying of the skin.

Dermatitis (skin inflammation)

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

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Suitable extinguishing media

CO2
Foam
Dry extinguisher

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:

Irritating vapours
Oxides of carbon
Oxides of nitrogen
Oxides of sulphur
Oxides of phosphorus
Flammable vapour/air mixtures

5.3 Advice for firefighters

For personal protective equipment see Section 8.

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.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

Leave the danger zone if possible, use existing emergency plans if necessary.

Ensure sufficient supply of air.

Avoid formation of oil mist.

Avoid inhalation, and contact with eyes or skin.

Do not carry cleaning cloths soaked in product in trouser pockets.

If applicable, caution - risk of slipping.

6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.

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.

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.

Keep away from sources of ignition - Do not smoke.

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

Do not heat to temperatures close to flash point.

Take measures against electrostatic charging, if appropriate.

Observe directions on label and instructions for use.

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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

Not to be stored in gangways or stair wells.
 Store product closed and only in original packing.
 Protect against moisture and store closed.
 Store cool.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

| Chemical Name | Oil mist, mineral | Content %: |
|---|-------------------|------------------------|
| WEL-TWA: 5 mg/m ³ (Mineral oil, excluding metal working fluids, ACGIH) | WEL-STEL: --- | --- |
| Monitoring procedures: - Draeger - Oil Mist 1/a (67 33 031) | | |
| BMGV: --- | | Other information: --- |

| Distillates (petroleum), hydrotreated heavy paraffinic | | | | | | |
|--|--|--------------------------|------------|-------|-------------------|------|
| Area of application | Exposure route / Environmental compartment | Effect on health | Descriptor | Value | Unit | Note |
| | Environment - oral (animal feed) | | PNEC | 9,33 | mg/kg | |
| Consumer | Human - inhalation | Long term, local effects | DNEL | 1,2 | mg/m ³ | 24h |
| Workers / employees | Human - inhalation | Long term, local effects | DNEL | 5,58 | mg/m ³ | 8h |

| Distillates (petroleum), solvent-dewaxed heavy paraffinic | | | | | | |
|---|--|--------------------------|------------|-------|-------------------|------|
| Area of application | Exposure route / Environmental compartment | Effect on health | Descriptor | Value | Unit | Note |
| | Environment - oral (animal feed) | | PNEC | 9,33 | mg/kg feed | |
| Consumer | Human - inhalation | Long term, local effects | DNEL | 1,2 | mg/m ³ | |
| Workers / employees | Human - inhalation | Long term, local effects | DNEL | 5,4 | mg/m ³ | |

| Distillates (petroleum), hydrotreated heavy paraffinic | | | | | | |
|--|--|------------------|------------|-------|------------|------|
| Area of application | Exposure route / Environmental compartment | Effect on health | Descriptor | Value | Unit | Note |
| | Environment - oral (animal feed) | | PNEC | 9,33 | mg/kg feed | |

GB 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 (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE).
 (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).
 (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/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.

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** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.
(13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

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. EN 14042.
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 feedingstuffs.
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 splashes.

Skin protection - Hand protection:
Protective nitrile gloves (EN ISO 374).
Permeation time (penetration time) in minutes:
>480
Minimum layer thickness in mm:
0,4
Protective hand cream recommended.
The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.
The recommended maximum wearing time is 50% of breakthrough time.

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

Respiratory protection:
Normally not necessary.
With oil mist formation:
Filter A 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: Liquid

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| | |
|---|--|
| Colour: | Green, Brown, Fluorescent |
| Odour: | Characteristic |
| Melting point/freezing point: | There is no information available on this parameter. |
| Boiling point or initial boiling point and boiling range: | There is no information available on this parameter. |
| Flammability: | Flammable |
| Lower explosion limit: | There is no information available on this parameter. |
| Upper explosion limit: | There is no information available on this parameter. |
| Flash point: | 242 °C |
| Auto-ignition temperature: | There is no information available on this parameter. |
| Decomposition temperature: | There is no information available on this parameter. |
| pH: | Mixture is non-soluble (in water). |
| Kinematic viscosity: | 118,1 mm ² /s (40°C) |
| Kinematic viscosity: | 18,8 mm ² /s (100°C) |
| Solubility: | Insoluble |
| Partition coefficient n-octanol/water (log value): | Does not apply to mixtures. |
| Vapour pressure: | There is no information available on this parameter. |
| Density and/or relative density: | 0,847 g/ml |
| Relative vapour density: | There is no information available on this parameter. |
| Particle characteristics: | Does not apply to liquids. |

9.2 Other information

| | |
|--------------------|---------------------------|
| Explosives: | Product is not explosive. |
| Oxidising liquids: | No |
| Bulk density: | n.a. |

SECTION 10: Stability and reactivity

10.1 Reactivity

The product has not been tested.

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

See also section 7.

Strong heat

10.5 Incompatible materials

See also section 7.

Avoid contact with strong oxidizing agents.

Avoid contact with strong acids.

10.6 Hazardous decomposition products

See also section 5.2

No decomposition when used as directed.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

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| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
|------------------------------------|----------|-------|------|----------|-------------|--------|
| Acute toxicity, by oral route: | | | | | | n.d.a. |
| 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: | | | | | | n.d.a. |
| Respiratory or skin sensitisation: | | | | | | n.d.a. |
| Germ cell mutagenicity: | | | | | | n.d.a. |
| Carcinogenicity: | | | | | | n.d.a. |
| Reproductive toxicity: | | | | | | n.d.a. |

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| | | | | | | |
|---|--|--|--|--|--|--------|
| Specific target organ toxicity - single exposure (STOT-SE): | | | | | | n.d.a. |
| Specific target organ toxicity - repeated exposure (STOT-RE): | | | | | | n.d.a. |
| Aspiration hazard: | | | | | | n.d.a. |
| Symptoms: | | | | | | n.d.a. |

| Distillates (petroleum), hydrotreated heavy paraffinic | | | | | | |
|---|-----------------|--------------|-------------|------------------------|--|---|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by oral route: | LD50 | >5000 | mg/kg | Rat | OECD 420 (Acute Oral toxicity - Fixed Dose Procedure) | Analogous conclusion |
| Acute toxicity, by dermal route: | LD50 | >5000 | mg/kg | Rabbit | OECD 402 (Acute Dermal Toxicity) | Analogous conclusion |
| Acute toxicity, by inhalation: | LC50 | >5,53 | mg/l/4h | Rat | OECD 403 (Acute Inhalation Toxicity) | Aerosol |
| Skin corrosion/irritation: | | | | Rabbit | OECD 404 (Acute Dermal Irritation/Corrosion) | Not irritant, Analogous conclusion |
| Serious eye damage/irritation: | | | | Rabbit | OECD 405 (Acute Eye Irritation/Corrosion) | Not irritant, Analogous conclusion |
| Respiratory or skin sensitisation: | | | | Guinea pig | OECD 406 (Skin Sensitisation) | No (skin contact), Analogous conclusion |
| Germ cell mutagenicity: | | | | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test) | Negative, Analogous conclusion |
| Germ cell mutagenicity: | | | | | OECD 473 (In Vitro Mammalian Chromosome Aberration Test) | Negative, Analogous conclusion Chinese hamster |
| Germ cell mutagenicity: | | | | Mouse | OECD 476 (In Vitro Mammalian Cell Gene Mutation Test) | Negative, Analogous conclusion |
| Germ cell mutagenicity: | | | | Mouse | OECD 474 (Mammalian Erythrocyte Micronucleus Test) | Negative, Analogous conclusion |
| Carcinogenicity: | | | | Mouse | OECD 451 (Carcinogenicity Studies) | Negative, Analogous conclusion 78 weeks, dermal |
| Reproductive toxicity (Developmental toxicity): | | | | Rat | OECD 414 (Prenatal Developmental Toxicity Study) | Negative, Analogous conclusion dermal |
| Reproductive toxicity: | | | | Rat | OECD 421 (Reproduction/Developmental Toxicity Screening Test) | Negative, Analogous conclusion oral |
| Specific target organ toxicity - repeated exposure (STOT-RE), oral: | LOAEL | 125 | mg/kg | Rat | OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) | Analogous conclusion |
| Aspiration hazard: | | | | | | Yes |
| Specific target organ toxicity - repeated exposure (STOT-RE), dermal: | NOAEL | 1000 | mg/kg | Rabbit | OECD 410 (Repeated Dose Dermal Toxicity - 90-Day) | Analogous conclusion |
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | NOAEL | 0,22 | mg/l | Rat | | Dust, Mist, Analogous conclusion 4 weeks |

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| Distillates (petroleum), solvent-dewaxed heavy paraffinic | | | | | | |
|---|-----------------|--------------|-------------|------------------------|---|---|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by oral route: | LD50 | >5000 | mg/kg | Rat | OECD 401 (Acute Oral Toxicity) | |
| Acute toxicity, by dermal route: | LD50 | >5000 | mg/kg | Rabbit | OECD 402 (Acute Dermal Toxicity) | |
| Acute toxicity, by inhalation: | LD50 | >5,53 | mg/l/4h | Rat | OECD 403 (Acute Inhalation Toxicity) | Aerosol |
| Skin corrosion/irritation: | | | | Rabbit | OECD 404 (Acute Dermal Irritation/Corrosion) | Not irritant, Analogous conclusion |
| Serious eye damage/irritation: | | | | Rabbit | OECD 405 (Acute Eye Irritation/Corrosion) | Not irritant, Analogous conclusion |
| Respiratory or skin sensitisation: | | | | Guinea pig | OECD 406 (Skin Sensitisation) | No (skin contact), Analogous conclusion |
| Germ cell mutagenicity: | | | | Mouse | OECD 474 (Mammalian Erythrocyte Micronucleus Test) | Negative, Analogous conclusion |
| Germ cell mutagenicity: | | | | Mammalian | OECD 473 (In Vitro Mammalian Chromosome Aberration Test) | Negative, Analogous conclusion Chinese hamster |
| Germ cell mutagenicity: | | | | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test) | Negative, Analogous conclusion |
| Germ cell mutagenicity: | | | | Mouse | OECD 476 (In Vitro Mammalian Cell Gene Mutation Test) | Negative, Analogous conclusion |
| Carcinogenicity: | | | | Mouse | OECD 451 (Carcinogenicity Studies) | Negative, Analogous conclusion 78 weeks, dermal |
| Reproductive toxicity (Developmental toxicity): | | | | Rat | OECD 414 (Prenatal Developmental Toxicity Study) | Negative, Analogous conclusion dermal |
| Carcinogenicity: | | | | Mouse | | Female, Negative |
| Reproductive toxicity: | | | | Rat | | Negative |
| Reproductive toxicity (Effects on fertility): | | | | Rat | OECD 421 (Reproduction/Developmental Toxicity Screening Test) | Negative, Analogous conclusion oral, dermal |
| Aspiration hazard: | | | | | | Yes |
| Specific target organ toxicity - repeated exposure (STOT-RE), dermal: | NOAEL | ~1000 | mg/kg bw/d | Rabbit | OECD 410 (Repeated Dose Dermal Toxicity - 90-Day) | Analogous conclusion |
| Symptoms: | | | | | | mucous membrane irritation, dizziness, nausea |
| Specific target organ toxicity - repeated exposure (STOT-RE), dermal: | NOAEL | 30 | mg/kg/d | Rat | OECD 411 (Subchronic Dermal Toxicity - 90-day Study) | Analogous conclusion |
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | NOAEL | 0,22 | mg/l | Rat | | Aerosol, Analogous conclusion 4 weeks |

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|---|-------|------|------|-----|--|--|
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | NOAEL | 0,15 | mg/l | Rat | | Aerosol, Analogous conclusion 13 weeks |
|---|-------|------|------|-----|--|--|

11.2. Information on other hazards

| Molygen 5W-50 | | | | | | |
|----------------------------------|----------|-------|------|----------|-------------|---|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Endocrine disrupting properties: | | | | | | Does not apply to mixtures. |
| Other information: | | | | | | No other relevant information available on adverse effects on health. |

SECTION 12: Ecological information

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

| Molygen 5W-50 | | | | | | | |
|--|----------|------|-------|------|----------|-------------|---|
| 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 degradability: | | | | | | | Mechanical precipitation possible. |
| 12.3. Bioaccumulative potential: | | | | | | | n.d.a. |
| 12.4. Mobility in soil: | | | | | | | n.d.a. |
| 12.5. Results of PBT and vPvB assessment | | | | | | | n.d.a. |
| 12.6. Endocrine disrupting properties: | | | | | | | Does not apply to mixtures. |
| 12.7. Other adverse effects: | | | | | | | No information available on other adverse effects on the environment. |

| Distillates (petroleum), hydrotreated heavy paraffinic | | | | | | | |
|--|-----------|------|-------|------|---------------------|--|-------------------------------------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |
| 12.3. Bioaccumulative potential: | Log Pow | | 3,9-6 | | | | High |
| 12.1. Toxicity to fish: | LL50 | 96h | >100 | mg/l | Oncorhynchus mykiss | OECD 203 (Fish, Acute Toxicity Test) | Analogous conclusion |
| 12.1. Toxicity to fish: | NOEC/NOEL | 28d | >1000 | mg/l | Oncorhynchus mykiss | QSAR | |
| 12.1. Toxicity to daphnia: | NOEC/NOEL | 21d | 10 | mg/l | Daphnia magna | QSAR | Analogous conclusion |
| 12.1. Toxicity to daphnia: | EL50 | 48h | >1000 | mg/l | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisation Test) | Analogous conclusion |

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|---|-----------|-----|-------|------|-------------------------------------|--|--|
| 12.1. Toxicity to algae: | EL50 | 48h | >100 | mg/l | Pseudokirchneriell a subcapitata | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.1. Toxicity to algae: | NOEC/NOEL | 72h | >=100 | mg/l | Pseudokirchneriell a subcapitata | OECD 201 (Alga, Growth Inhibition Test) | Analogous conclusion |
| 12.2. Persistence and degradability: | | 28d | 31 | % | activated sludge | OECD 301 F (Ready Biodegradability - Manometric Respirometry Test) | Not readily biodegradable, Analogous conclusion |
| 12.2. Persistence and degradability: | | 28d | 6 | % | | OECD 301 B (Ready Biodegradability - Co2 Evolution Test) | |
| Other information: | AOX | | 0 | % | | | |

Distillates (petroleum), solvent-dewaxed heavy paraffinic

| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
|---|-----------|------|-------|------|----------------------------|--|---|
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |
| 12.1. Toxicity to fish: | LC50 | 96h | >100 | mg/l | Pimephales promelas | OECD 203 (Fish, Acute Toxicity Test) | Analogous conclusion |
| 12.1. Toxicity to fish: | NOEC/NOEL | 14d | 1000 | mg/l | Oncorhynchus mykiss | QSAR | |
| 12.1. Toxicity to fish: | LC50 | 96h | >1000 | mg/l | Salmo gairdneri | | |
| 12.1. Toxicity to fish: | LC50 | 96h | >5000 | mg/l | Oncorhynchus mykiss | OECD 203 (Fish, Acute Toxicity Test) | |
| 12.1. Toxicity to daphnia: | EC50 | 48h | >1000 | mg/l | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisation Test) | Analogous conclusion |
| 12.1. Toxicity to algae: | EC50 | 96h | >1000 | mg/l | Scenedesmus subspicatus | | |
| 12.2. Persistence and degradability: | | 28d | 6 | % | | OECD 301 B (Ready Biodegradability - Co2 Evolution Test) | Analogous conclusion |
| 12.2. Persistence and degradability: | | 28d | 31 | % | activated sludge | OECD 301 F (Ready Biodegradability - Manometric Respirometry Test) | Not readily biodegradable (Analogous conclusion) |
| 12.3. Bioaccumulative potential: | Log Pow | | >3 | | | | Low |
| Toxicity to bacteria: | EC20 | 6h | >1000 | mg/l | Pseudomonas fluorescens | | |

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

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allocated under certain circumstances. (2014/955/EU)
 07 06 99 wastes not otherwise specified
 13 02 05 mineral-based non-chlorinated engine, gear and lubricating oils
 20 01 26 oil and fat other than those mentioned in 20 01 25

Recommendation:

Sewage disposal shall be discouraged.
 Pay attention to local and national official regulations.
 E.g. dispose at suitable refuse site.
 E.g. suitable incineration plant.

For contaminated packing material

Pay attention to local and national official regulations.

15 01 01 paper and cardboard packaging

15 01 02 plastic packaging

15 01 04 metallic packaging

Empty container completely.

Uncontaminated packaging can be recycled.

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

SECTION 14: Transport information

General statements

14.1. UN number or ID number: n.a.

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

14.3. Transport hazard class(es): n.a.

14.4. Packing group: n.a.

Classification code: n.a.

LQ: n.a.

14.5. Environmental hazards: Not applicable

Tunnel restriction code:

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

14.3. Transport hazard class(es): n.a.

14.4. Packing group: n.a.

Marine Pollutant: n.a.

14.5. Environmental hazards: Not applicable

Transport by air (IATA)

14.2. UN proper shipping name:

14.3. Transport hazard class(es): n.a.

14.4. Packing group: n.a.

14.5. Environmental hazards: Not applicable

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

14.7. Maritime transport in bulk according to IMO instruments

Non-dangerous material according to Transport Regulations.

SECTION 15: Regulatory information

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

Observe restrictions:

General hygiene measures for the handling of chemicals are applicable.

Directive 2010/75/EU (VOC): < 1 %

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

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Revised sections: 3, 8, 11, 12

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

Not applicable

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).

H304 May be fatal if swallowed and enters airways.

Asp. Tox. — Aspiration hazard

Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.
 Guidelines for the preparation of safety data sheets as amended (ECHA).
 Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).
 Safety data sheets for the constituent substances.
 ECHA Homepage - Information about chemicals.
 GESTIS Substance Database (Germany).
 German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).
 EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.
 National Lists of Occupational Exposure Limits for each country as amended.
 Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to
 ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
 AOX Adsorbable organic halogen compounds
 approx. approximately
 Art., Art. no. Article number
 ASTM ASTM International (American Society for Testing and Materials)
 ATE Acute Toxicity Estimate
 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
 BSEF The International Bromine Council
 bw body weight
 CAS Chemical Abstracts Service
 CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
 CMR carcinogenic, mutagenic, reproductive toxic
 DMEL Derived Minimum Effect Level
 DNEL Derived No Effect Level
 DOC Dissolved organic carbon
 dw dry weight
 e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
 EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)
 EC European Community
 ECHA European Chemicals Agency
 ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect
 EEC European Economic Community
 EINECS European Inventory of Existing Commercial Chemical Substances
 ELINCS European List of Notified Chemical Substances
 EN European Norms
 EPA United States Environmental Protection Agency (United States of America)
 ErCx, EµCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)
 etc. et cetera
 EU European Union

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EVAL Ethylene-vinyl alcohol copolymer
Fax. Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
Koc Adsorption coefficient of organic carbon in the soil
Kow octanol-water partition coefficient
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IBC (Code) International Bulk Chemical (Code)
IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCLID International Uniform Chemical Information Database
IUPAC International Union for Pure Applied Chemistry
LC50 Lethal Concentration to 50 % of a test population
LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)
Log Koc Logarithm of adsorption coefficient of organic carbon in the soil
Log Kow, Log Pow Logarithm of octanol-water partition coefficient
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute for Occupational Safety and Health (USA)
NLP No-longer-Polymer
NOEC, NOEL No Observed Effect Concentration/Level
OECD Organisation for Economic Co-operation and Development
org. organic
OSHA Occupational Safety and Health Administration (USA)
PBT persistent, bioaccumulative and toxic
PE Polyethylene
PNEC Predicted No Effect Concentration
ppm parts per million
PVC Polyvinylchloride
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
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.
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SVHC Substances of Very High Concern
Tel. Telephone
TOC Total organic carbon
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
wwt wet weight

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 GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

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