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

### 1.1. Product identifier

HIGHTEC INJECTION CLEANER

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

**Use of the substance/mixture**

Lubricating agent, Additive

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

| | | |
|---|---|---|
| Company name: | ROWE Mineralölwerk GmbH | |
| Street: | Langgewann 101 | |
| Place: | D-67547 Worms | |
| Telephone: | +49 (0)6241 5906-0 | Telefax: +49 (0)6241 5906-999 |
| E-mail: | info@rowe-oil.com | |
| Contact person: | Product Compliance | |
| E-mail: | sdb@rowe-oil.com | |
| Internet: | www.rowe-oil.com | |

### 1.4. Emergency telephone number:

Ireland: Public (8am-10pm) +353 180 921 66, Healthcare Professionals +353 1809 2566 other Countries: Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0)6132-84463

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Regulation (EC) No 1272/2008**

Asp. Tox. 1; H304

Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

**Regulation (EC) No 1272/2008**

**Hazard components for labelling**

Naphtha (petroleum), hydrotreated heavy

Distillates (petroleum), hydro-treated light; Kerosine - unspecified

Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified

**Signal word:** Danger

**Pictograms:**

**Hazard statements**

| | |
|---|---|
| H304 | May be fatal if swallowed and enters airways. |
| H412 | Harmful to aquatic life with long lasting effects. |

**Precautionary statements**

| | |
|---|---|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER/doctor. |
| P331 | Do NOT induce vomiting. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container to of the disposal according to local regulations. |

**Special labelling of certain mixtures**

EUH066 Repeated exposure may cause skin dryness or cracking.

**2.3. Other hazards**

The components in this formulation do not meet the criteria for classification as PBT or vPvB.
Vapours can form explosive mixtures with air.

## SECTION 3: Composition/information on ingredients

**3.2. Mixtures**

**Relevant ingredients**

| CAS No | Chemical name | | | Quantity |
|---|---|---|---|---|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 64742-48-9 | Naphtha (petroleum), hydrotreated heavy | | | 60 - < 100 % |
| | 265-150-3 | 649-327-00-6 | 01-2119486659-16 | |
| | Asp. Tox. 1; H304 EUH066 | | | |
| 104-76-7 | 2-ethylhexan-1-ol | | | 2.5 - < 5 % |
| | 203-234-3 | | 01-2119487289-20 | |
| | Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H332 H315 H319 H335 | | | |
| 64742-47-8 | Distillates (petroleum), hydro-treated light; Kerosine - unspecified | | | 2.5 - < 5 % |
| | 265-149-8 | 649-422-00-2 | 01-2119484819-18 | |
| | Asp. Tox. 1; H304 EUH066 | | | |
| 64742-94-5 | Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified | | | 2.5 - < 5 % |
| | 265-198-5 | 649-424-00-3 | | |
| | STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H336 H304 H411 | | | |

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

| CAS No | EC No | Chemical name | Quantity |
|---|---|---|---|
| | Specific Conc. Limits, M-factors and ATE | | |
| 64742-48-9 | 265-150-3 | Naphtha (petroleum), hydrotreated heavy | 60 - < 100 % |
| | inhalation: LC50 = 28,1 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg | | |
| 104-76-7 | 203-234-3 | 2-ethylhexan-1-ol | 2.5 - < 5 % |
| | inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); oral: LD50 = 3290 mg/kg | | |
| 64742-47-8 | 265-149-8 | Distillates (petroleum), hydro-treated light; Kerosine - unspecified | 2.5 - < 5 % |
| | dermal: LD50 = > 4000 mg/kg; oral: LD50 = > 5000 mg/kg | | |
| 64742-94-5 | 265-198-5 | Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified | 2.5 - < 5 % |
| | inhalation: LC50 = 30 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg | | |

## 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.

**After inhalation**

Provide fresh air. If experiencing respiratory symptoms: Call a doctor.

**After contact with skin**

Take off contaminated clothing and wash it before reuse. After contact with skin, wash immediately with plenty

of water and soap. In case of skin reactions, consult a physician.

**After contact with eyes**

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

**After ingestion**

Observe risk of aspiration if vomiting occurs. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

**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**

Treat symptomatically.

## SECTION 5: Firefighting measures

**5.1. Extinguishing media**

**Suitable extinguishing media**

Water spray jet. Foam. Carbon dioxide (CO2).
Co-ordinate fire-fighting measures to the fire surroundings.

**5.2. Special hazards arising from the substance or mixture**

Combustible. Non-flammable. Vapours can form explosive mixtures with air.
In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide (CO2), Pyrolysis products, toxic.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus. Full protection suit.

**Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**

**General advice**

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

**For non-emergency personnel**

Provide adequate ventilation. Use personal protection equipment. Remove persons to safety.

**For emergency responders**

Wear personal protection equipment (refer to section 8).

**6.2. Environmental precautions**

Do not allow uncontrolled discharge of product into the environment.

**6.3. Methods and material for containment and cleaning up**

**For containment**

Prevent spread over a wide area (e.g. by containment or oil barriers). Cover drains. Stop leak if safe to do so.

**For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**Other information**

Clean contaminated articles and floor according to the environmental legislation.

**6.4. Reference to other sections**

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Advice on safe handling**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with eyes and skin. Use personal protection equipment.

**Advice on protection against fire and explosion**

Vapours may form explosive mixtures with air. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only antistatically equipped (spark-free) tools.

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

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

**Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place. Store in a dry place.

**Hints on joint storage**

Do not store together with: Oxidizing agent, Pyrophoric or self-heating substances.

**Further information on storage conditions**

Keep away from heat.

### 7.3. Specific end use(s)

Lubricating agent, Additive

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Occupational exposure limits**

| CAS No | Substance | ppm | mg/m³ | fib/cm³ | Category | Origin |
|---|---|---|---|---|---|---|
| 104-76-7 | 2-Ethylhexan-1-ol | 1 | 5.4 | | TWA (8 h) | |
| - | Mineral Oil pure, highly & severely refined (Inhalable) | - | 5 | | TWA (8 h) | |

**DNEL/DMEL values**

| CAS No | Substance | | |
|---|---|---|---|
| DNEL type | Exposure route | Effect | Value |
| 64742-48-9 | Naphtha (petroleum), hydrotreated heavy | | |
| Worker DNEL, long-term | inhalation | systemic | 1,9 mg/m³ |
| Worker DNEL, acute | inhalation | systemic | 1286,4 mg/m³ |
| Worker DNEL, long-term | inhalation | local | 837,5 mg/m³ |
| Worker DNEL, acute | inhalation | local | 1066,67 mg/m³ |
| Consumer DNEL, long-term | inhalation | systemic | 0,41 mg/m³ |
| Consumer DNEL, acute | inhalation | systemic | 1152 mg/m³ |
| Consumer DNEL, long-term | inhalation | local | 178,57 mg/m³ |
| Consumer DNEL, acute | inhalation | local | 640 mg/m³ |
| 104-76-7 | 2-ethylhexan-1-ol | | |
| Worker DNEL, long-term | inhalation | systemic | 12,8 mg/m³ |
| Worker DNEL, long-term | inhalation | local | 53,2 mg/m³ |
| Worker DNEL, acute | inhalation | local | 53,2 mg/m³ |
| Worker DNEL, long-term | dermal | systemic | 23 mg/kg bw/day |
| Consumer DNEL, long-term | inhalation | systemic | 2,3 mg/m³ |
| Consumer DNEL, long-term | inhalation | local | 26,6 mg/m³ |
| Consumer DNEL, acute | inhalation | local | 26,6 mg/m³ |
| Consumer DNEL, long-term | dermal | systemic | 11,4 mg/kg bw/day |
| Consumer DNEL, long-term | oral | systemic | 1,1 mg/kg bw/day |
| 64742-94-5 | Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified | | |
| Consumer DNEL, long-term | inhalation | systemic | 10,2 mg/m³ |
| Consumer DNEL, long-term | dermal | systemic | 42,4 mg/kg bw/day |
| Consumer DNEL, long-term | oral | systemic | 2,1 mg/kg bw/day |

**PNEC values**

| CAS No | Substance |
|---|---|
| Environmental compartment | Value |
| 104-76-7 | 2-ethylhexan-1-ol |
| Freshwater | 0,017 mg/l |
| Freshwater (intermittent releases) | 0,17 mg/l |
| Marine water | 0,002 mg/l |
| Freshwater sediment | 0,284 mg/kg |
| Marine sediment | 0,028 mg/kg |
| Secondary poisoning | 55 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | 10 mg/l |
| Soil | 0,047 mg/kg |

**8.2. Exposure controls**



**Appropriate engineering controls**

Provide adequate ventilation as well as local exhaustion at critical locations.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear eye/face protection. (EN 166)

**Hand protection**

Tested protective gloves must be worn (EN ISO 374)

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

**Thermal hazards**

Flame-retardant protective clothing Wear anti-static footwear and clothing

**Environmental exposure controls**

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

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

| | | |
|---|---|---|
| Physical state: | liquid | |
| Colour: | yellow-orange | |
| Odour: | characteristic | |
| Odour threshold: | not determined | |
| Melting point/freezing point: | | not determined |
| Boiling point or initial boiling point and boiling range: | | 184,7 °C |
| Flammability: | | Combustible. Non-flammable. |
| Lower explosion limits: | | 0,5 vol. % |
| Upper explosion limits: | | 7,0 vol. % |
| Flash point: | | > 61 °C |
| Auto-ignition temperature: | | 200 °C |
| Decomposition temperature: | | not determined |
| pH-Value: | | not determined |
| Viscosity / kinematic: (at 20 °C) | | 1,5 mm²/s |
| Water solubility: | | Immiscible |
| Solubility in other solvents | | |
| not determined | | |
| Partition coefficient n-octanol/water: | | not determined |
| Vapour pressure: | | not determined |
| Density (at 20 °C): | | 0,8 g/cm³ |

| | |
|---|---|
| Relative vapour density: | not determined |
| Particle characteristics: | not applicable |

**9.2. Other information**

**Information with regard to physical hazard classes**

Explosive properties

Vapours may form explosive mixtures with air.

**Further Information**

No information available.

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Vapours may form explosive mixtures with air.

**10.4. Conditions to avoid**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**10.5. Incompatible materials**

Oxidizing agent, Pyrophoric or self-heating substances.

**10.6. Hazardous decomposition products**

In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide (CO2), Pyrolysis products, toxic.

## SECTION 11: Toxicological information

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

**Acute toxicity**

Based on available data, the classification criteria are not met.

**ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) 224,5 mg/l; ATE (inhalation dust/mist) 30,61 mg/l

| CAS No | Chemical name | | | | | |
|---|---|---|---|---|---|---|
| | Exposure route | Dose | | Species | Source | Method |
| 64742-48-9 | Naphtha (petroleum), hydrotreated heavy | | | | | |
| | oral | LD50 mg/kg | > 2000 | Rat | Study report (1989) | OECD Guideline 401 |
| | dermal | LD50 mg/kg | > 2000 | Rat | Study report (1989) | OECD Guideline 402 |
| | inhalation (4 h) vapour | LC50 | 28,1 mg/l | Rat | Study report (1980) | OECD Guideline 403 |
| 104-76-7 | 2-ethylhexan-1-ol | | | | | |
| | oral | LD50 mg/kg | 3290 | Rat | Publication (1973) | OECD Guideline 401 |
| | inhalation vapour | ATE | 11 mg/l | | | |
| | inhalation dust/mist | ATE | 1,5 mg/l | | | |
| 64742-47-8 | Distillates (petroleum), hydro-treated light; Kerosine - unspecified | | | | | |
| | oral | LD50 mg/kg | > 5000 | Rat | Study report (1992) | EPA OTS 798.1175 |
| | dermal | LD50 mg/kg | > 4000 | Rabbit | Study report (1980) | OECD Guideline 402 |
| 64742-94-5 | Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified | | | | | |
| | oral | LD50 mg/kg | > 5000 | Rat | Study report (1990) | EPA OTS 798.1175 |
| | dermal | LD50 mg/kg | > 2000 | Rat | Study report (1989) | OECD Guideline 402 |
| | inhalation (4 h) vapour | LC50 | 30 mg/l | Rat | Study report (1980) | OECD Guideline 403 |

**Irritation and corrosivity**

Based on available data, the classification criteria are not met.
Repeated exposure may cause skin dryness or cracking.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

May be fatal if swallowed and enters airways.

**Information on likely routes of exposure**

Inhalation, oral, Skin contact, Eye contact.

### 11.2. Information on other hazards

**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

**Other information**

No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Harmful to aquatic life with long lasting effects.

| CAS No | Chemical name | | | | | | |
|---|---|---|---|---|---|---|---|
| | Aquatic toxicity | Dose | | [h] \| [d] | Species | Source | Method |
| 64742-48-9 | Naphtha (petroleum), hydrotreated heavy | | | | | | |
| | Acute fish toxicity | LL50 | > 22 - < 32 mg/l | 96 h | Leuciscus idus | Study report (1983) | DIN 38 412 |
| | Acute algae toxicity | ErC50 | 2,56 mg/l | 72 h | Raphidocelis subcapitata | Study report (2004) | OECD Guideline 201 |
| | Acute crustacea toxicity | EL50 | 13 mg/l | 48 h | Daphnia magna | Study report (2004) | OECD Guideline 202 |
| | Fish toxicity | NOEC | 2,6 mg/l | 21 d | Daphnia magna | Study report (1999) | OECD Guideline 211 |
| | Crustacea toxicity | NOEC | 2,6 mg/l | 21 d | Daphnia magna | Study report (1999) | OECD Guideline 211 |
| 104-76-7 | 2-ethylhexan-1-ol | | | | | | |
| | Acute fish toxicity | LC50 | 17,1 mg/l | 96 h | Leuciscus idus melanotus | Study report (1991) | EU Method C.1 |
| | Acute algae toxicity | ErC50 | 11,5 mg/l | 72 h | Desmodesmus subspicatus | Study report (1991) | EU Method C.3 |
| | Acute crustacea toxicity | EC50 | 39 mg/l | 48 h | Daphnia magna | Study report (1991) | EU Method C.2 |
| 64742-94-5 | Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified | | | | | | |
| | Acute crustacea toxicity | EL50 | 3,2 mg/l | 48 h | Daphnia magna Straus | Study report (2004) | OECD Guideline 202 |

## 12.2. Persistence and degradability

The product has not been tested.

## 12.3. Bioaccumulative potential

The product has not been tested.

**Partition coefficient n-octanol/water**

| CAS No | Chemical name | Log Pow |
|---|---|---|
| 64742-48-9 | Naphtha (petroleum), hydrotreated heavy | > 2,4 - < 5,2 |
| 104-76-7 | 2-ethylhexan-1-ol | 2,9 |
| 64742-94-5 | Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified | > 3,1 - < 4,7 |

**BCF**

| CAS No | Chemical name | BCF | Species | Source |
|---|---|---|---|---|
| 64742-48-9 | Naphtha (petroleum), hydrotreated heavy | 39 - 18220 | | USEPA (2008) |
| 64742-94-5 | Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified | 26 - 18000 | | USEPA (2008) |

## 12.4. Mobility in soil

The product has not been tested.

## 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

## 12.7. Other adverse effects

No information available.

**Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods**

**Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

**List of Wastes Code - residues/unused products**

070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; other organic solvents, washing liquids and mother liquors; hazardous waste

**List of Wastes Code - used product**

070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; other organic solvents, washing liquids and mother liquors; hazardous waste

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

## SECTION 14: Transport information

**Land transport (ADR/RID)**

| | |
|---|---|
| **14.1. UN number or ID number:** | No dangerous good in sense of this transport regulation. |
| **14.2. UN proper shipping name:** | No dangerous good in sense of this transport regulation. |
| **14.3. Transport hazard class(es):** | No dangerous good in sense of this transport regulation. |
| **14.4. Packing group:** | No dangerous good in sense of this transport regulation. |

**Inland waterways transport (ADN)**

| | |
|---|---|
| **14.1. UN number or ID number:** | No dangerous good in sense of this transport regulation. |
| **14.2. UN proper shipping name:** | No dangerous good in sense of this transport regulation. |
| **14.3. Transport hazard class(es):** | No dangerous good in sense of this transport regulation. |
| **14.4. Packing group:** | No dangerous good in sense of this transport regulation. |

**Marine transport (IMDG)**

| | |
|---|---|
| **14.1. UN number or ID number:** | No dangerous good in sense of this transport regulation. |
| **14.2. UN proper shipping name:** | No dangerous good in sense of this transport regulation. |
| **14.3. Transport hazard class(es):** | No dangerous good in sense of this transport regulation. |
| **14.4. Packing group:** | No dangerous good in sense of this transport regulation. |

**Air transport (ICAO-TI/IATA-DGR)**

| | |
|---|---|
| **14.1. UN number or ID number:** | No dangerous good in sense of this transport regulation. |
| **14.2. UN proper shipping name:** | No dangerous good in sense of this transport regulation. |
| **14.3. Transport hazard class(es):** | No dangerous good in sense of this transport regulation. |
| **14.4. Packing group:** | No dangerous good in sense of this transport regulation. |

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

No information available.

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

## SECTION 15: Regulatory information

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3

| | |
|---|---|
| Information according to Directive 2012/18/EU (SEVESO III): | Not subject to 2012/18/EU (SEVESO III) |

**National regulatory information**

| | |
|---|---|
| Employment restrictions: | Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). |
| Water hazard class (D): | 2 - obviously hazardous to water |

**Additional information**

Observe in addition any national regulations!

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

**Changes**

This data sheet contains changes from the previous version in section(s):
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

**Abbreviations and acronyms**

Acute Tox: Acute toxicity
Asp. Tox: Aspiration hazard
Skin Irrit: Skin irritation
Eye Irrit: Eye irritation
STOT SE: Specific target organ toxicity - single exposure
Aquatic Chronic: Chronic aquatic hazard
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
CAS: Chemical Abstracts Service
M-Factor: Multiplication Factor
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
IMDG: International Maritime Code for Dangerous Goods
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
TI: Technical Instructions
DGR: Dangerous Goods Regulations
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
EG or EC: European Community
IE: Industrial Emissions
SVHC: Substance of Very High Concern

**Key literature references and sources for data**

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations). (v.1.2, 2013)

**Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]**

| Classification | Classification procedure |
|---|---|
| Asp. Tox. 1; H304 | Calculation method |
| Aquatic Chronic 3; H412 | Calculation method |

**Relevant H and EUH statements (number and full text)**

| | |
|---|---|
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*