# Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

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

### 1.1. Product identifier

**Trade name/designation:**

ISO-TOP THERMFOAM B1

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

**Use of the substance/mixture:**

Bauprodukte.

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

**Supplier (manufacturer/importer/only representative/downstream user/distributor):**

**ISO- CHEMIE GmbH**
Röntgenstraße 12
73431 Aalen
Germany
**Telephone:** +49 (0)7361 9490-0
**Telefax:** +49 (0)7361 9490-90
**E-mail:** info@iso-chemie.de
**Website:** www.iso-chemie.de

* **1.4. Emergency telephone number**

24h: +49 (0)761 19240

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

| Hazard classes and hazard categories | Hazard statements | Classification procedure |
|---|---|---|
| Aerosols *(Aerosol 1)* | H222; H229: Extremely flammable aerosol. Pressurised container: May burst if heated. | |
| Skin corrosion/irritation *(Skin Irrit. 2)* | H315: Causes skin irritation. | |
| Respiratory or skin sensitisation *(Skin Sens. 1)* | H317: May cause an allergic skin reaction. | |
| Serious eye damage/eye irritation *(Eye Irrit. 2)* | H319: Causes serious eye irritation. | |
| Respiratory or skin sensitisation *(Resp. Sens. 1)* | H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. | |
| STOT-single exposure *(STOT SE 3)* | H335: May cause respiratory irritation. | |
| Carcinogenicity *(Carc. 2)* | H351: Suspected of causing cancer. | |
| STOT-repeated exposure *(STOT RE 2)* | H373: May cause damage to organs through prolonged or repeated exposure. (Inhalation) | |

### 2.2. Label elements

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

**Hazard pictograms:**

**GHS02**
Flame

**GHS08**
Health hazard

**GHS07**
Exclamation mark

**Signal word:** Danger

| **Hazard statements for physical hazards** | |
|---|---|
| H222 | Extremely flammable aerosol. |
| H229 | Pressurised container: May burst if heated. |

| **Hazard statements for health hazards** | |
|---|---|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H351 | Suspected of causing cancer. |
| H373 | May cause damage to organs through prolonged or repeated exposure. (Inhalation) |

| **Supplemental hazard information** | |
|---|---|
| EUH204 | Contains isocyanates. May produce an allergic reaction. |

| **Precautionary statements** | |
|---|---|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |

| **Precautionary statements Prevention** | |
|---|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211 | Do not spray on an open flame or other ignition source. |
| P251 | Do not pierce or burn, even after use. |
| P271 | Use only outdoors or in a well-ventilated area. |

| **Precautionary statements Response** | |
|---|---|
| P304 + P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

| **Precautionary statements Storage** | |
|---|---|
| P410 + P412 | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. |

| **Precautionary statements Disposal** | |
|---|---|
| P501 | Dispose of contents/container to Dispose of waste according to applicable legislation.. |

**Additional information:**
As from 24 August 2023 adequate training is required before industrial or professional use. Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

### 2.3. Other hazards

**Adverse human health effects and symptoms:**
Persons already sensitised to diisocyanates may develop allergic reactions when using this product.Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

**Hazardous ingredients / Hazardous impurities / Stabilisers:**

| **Product identifiers** | **Substance name**<br>**Classification according to Regulation (EC) No 1272/2008 [CLP]** | **Concentration** |
|---|---|---|
| CAS No.: 9016-87-9<br>EC No.: 618-498-9 | **4,4'-Methylendiphenyldiisocyanat, Isomere und Homologe**<br>Acute Tox. 4 (H332), Carc. 2 (H351), Eye Irrit. 2 (H319), Resp. Sens. 1 (H334), STOT RE 2 (H373), STOT SE 3 (H335), Skin Irrit. 2 (H315), Skin Sens. 1 (H317)<br>  Danger | 30 – < 50 % |
| CAS No.: 1244733-77-4<br>EC No.: 807-935-0<br>REACH No.: 01-2119486772-26 | **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran**<br>The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP]. | 10 – < 20 % |

| Product identifiers | Substance name<br>Classification according to Regulation (EC) No 1272/2008 [CLP] | Concentration |
|---|---|---|
| CAS No.: 86675-46-9<br>EC No.: 617-903-6<br>REACH No.:<br>01-2119972940-30 | **Polymer with 2-Butyne-1,4-Diol and (Chlormethyl-)Oxirane,Bromineted,Dehydrochorinated,Methoxylated**<br>The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP]. | 10 – < 20 % |
| CAS No.: 115-10-6<br>EC No.: 204-065-8<br>REACH No.:<br>01-2119472128-37 | **dimethyl ether**<br>Flam. Gas 1A (H220), Press. Gas (Liq.) (H280)<br>Danger | 2.5 – < 10 % |
| CAS No.: 75-28-5<br>EC No.: 200-857-2<br>Index No.: 601-004-00-0<br>REACH No.:<br>01-2119485395-27 | **isobutane**<br>Carc. 1A (H350), Flam. Gas 1A (H220), Muta. 1B (H340), Press. Gas (Liq.) (H280)<br>Danger | 2.5 – < 10 % |
| CAS No.: 75-37-6<br>EC No.: 200-866-1<br>REACH No.:<br>01-2119474440-43 | **1,1-difluoroethane**<br>The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP]. | 2.5 – < 10 % |
| CAS No.: 74-98-6<br>EC No.: 200-827-9<br>REACH No.:<br>01-2119469442-21 | **propane**<br>Flam. Gas 1A (H220), Press. Gas (Liq.) (H280)<br>Danger | 1 – < 2.5 % |
| CAS No.: 78-40-0<br>EC No.: 201-114-5<br>Index No.: 015-013-00-7<br>REACH No.:<br>01-2119492852-28 | **triethyl phosphate**<br>Acute Tox. 4 (H302)<br>Warning | 1 – < 2.5 % |

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information:**
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended. Warning First aider: Pay attention to self-protection!

**Following inhalation:**
Provide fresh air. In case of respiratory tract irritation, consult a physician. Get medical advice/attention. If breathing is irregular or stopped, administer artificial respiration. Get immediate medical advice/attention. Get medical advice/attention if you feel unwell.

**In case of skin contact:**
After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention. Take off immediately all contaminated clothing. After contact with molten product, cool skin area rapidly with cold water. In case of frostbite, wash with plenty of water; do not remove clothing.

**After eye contact:**
IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist. Do not subject to friction.

**Following ingestion:**
Rinse mouth. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

**Self-protection of the first aider:**
Use personal protection equipment. No direct artificial respiration to be given by first aider. First aider: Pay attention to self-protection!

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

Skin corrosion/irritation Allergic reactions Serious eye damage/eye irritation Asthmatic complaints Respiratory complaints Irritation to respiratory tract Most important symptoms and effects, both acute and delayed : See SECTION 2.1 (classification). Section 11: Toxicological Information

### 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:**
ABC-powder alcohol resistant foam Extinguishing powder Carbon dioxide (CO2)

**Unsuitable extinguishing media:**
Full water jet

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

**Hazardous combustion products:**
In case of fire: Gases/vapours, toxic Health hazard

### 5.3. Advice for firefighters
Wear a self-contained breathing apparatus and chemical protective clothing. Eliminate all ignition sources if safe to do so.

### 5.4. Additional information
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
**6.1.1. For non-emergency personnel**

**Personal precautions:**
Remove persons to safety.

**Protective equipment:**
Wear protective gloves/protective clothing/eye protection/face protection.

**Emergency procedures:**
Personal precautions, protective equipment and emergency procedures

**6.1.2. For emergency responders**

**Personal protection equipment:**
Personal protection equipment: see section 8

### 6.2. Environmental precautions
Do not allow to enter into surface water or drains.

### 6.3. Methods and material for containment and cleaning up
**For cleaning up:**
Suitable material for taking up: Sand

**Other information:**
Disposal: see section 13

### 6.4. Reference to other sections
Safe handling: see section 7 Personal protection equipment: see section 8

### 6.5. Additional information
Use appropriate container to avoid environmental contamination.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling
**Protective measures**

**Advices on safe handling:**
Wear personal protection equipment (refer to section 8). Adequate technical preventive measures Store in a closed container.Collect spillage. Clear spills immediately. Keep in a cool, well-ventilated place.

**Fire prevent measures:**
flame-resistant Stable under recommended storage and handling conditions.

**Advices on general occupational hygiene**
When using do not eat, drink or smoke. Avoid contact with eyes and skin.

### 7.2. Conditions for safe storage, including any incompatibilities
**Technical measures and storage conditions:**
Keep container tightly closed in a cool, well-ventilated place.

**Requirements for storage rooms and vessels:**
Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.Take precautionary measures against static discharge.

**Storage class (TRGS 510, Germany):** 2B – Aerosol dispensers and lighters

### 7.3. Specific end use(s)
**Recommendation:**
Observe technical data sheet.

**Industrial sector specific solutions:**
construction industry

## SECTION 8: Exposure controls/personal protection

* **8.1. Control parameters**

**8.1.1. Occupational exposure limit values**

| **Limit value type (country of origin)** | **Substance name** | **① Long-term occupational exposure limit value<br>② Short-term occupational exposure limit value<br>③ Instantaneous value<br>④ Monitoring and observation processes<br>⑤ Remark** |
|---|---|---|
| SI<br>from 4 Dec 2018 | **4,4'-Methylendiphenyldiisocyanat, Isomere und Homologe**<br>CAS No.: 9016-87-9<br>EC No.: 618-498-9 | ① 0.05 mg/m³<br>② 0.05 mg/m³<br>⑤ (als MDI berechnet), (frakcija ki jo je mogoče vdihniti, računati je treba z možnostjo prodiranja skozi kožo) K, Y |
| TRGS 900 (DE) | **4,4'-Methylendiphenyldiisocyanat, Isomere und Homologe**<br>CAS No.: 9016-87-9<br>EC No.: 618-498-9 | ① 0.05 mg/m³<br>② 0.05 mg/m³<br>③ 0.1 mg/m³<br>⑤ (als MDI berechnet), (einatembare Fraktion), kann über die Haut aufgenommen werden DFG, H, Sah, Y, 12 |
| CH<br>from 1 Jan 2022 | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 1,000 ppm (1,910 mg/m³)<br>⑤ Tox: Formal |
| BE | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 1,000 ppm (1,920 mg/m³) |
| CZ<br>from 1 Mar 2020 | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 522 ppm (1,000 mg/m³)<br>② 1,044 ppm (2,000 mg/m³) |
| PL | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 1,000 mg/m³ |
| NO | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 200 ppm (384 mg/m³)<br>⑤ E |
| TRGS 900 (DE) | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 1,000 ppm (1,900 mg/m³)<br>② 8,000 ppm (15,200 mg/m³)<br>⑤ DFG, EU |
| IE | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 1,000 ppm (1,920 mg/m³)<br>⑤ IOELV |
| HTP (FI) | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 1,000 ppm (2,000 mg/m³) |
| SE | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 500 ppm (950 mg/m³)<br>③ 800 ppm (1,500 mg/m³) |
| NPEL (SK) | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 1,000 ppm (1,920 mg/m³) |
| MAK (AT) | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 1,000 ppm (1,910 mg/m³) |
| DK<br>from 13 Feb 2021 | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 1,000 ppm (1,920 mg/m³)<br>② 2,000 ppm (3,840 mg/m³)<br>⑤ E |
| MAK (AT) | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ② 2,000 ppm (3,820 mg/m³)<br>⑤ (max. 3x60 min./Schicht, Momentanwert) |
| HR | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 1,000 ppm (1,920 mg/m³) |

| Limit value type (country of origin) | Substance name | ① Long-term occupational exposure limit value<br>② Short-term occupational exposure limit value<br>③ Instantaneous value<br>④ Monitoring and observation processes<br>⑤ Remark |
|---|---|---|
| ES | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 1,000 ppm (1,920 mg/m³)<br>⑤ VLI |
| IOELV (EU) | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 1,000 ppm (1,920 mg/m³) |
| VRI (FR)<br>from 3 May 2021 | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 1,000 ppm (1,920 mg/m³) |
| WEL (GB) | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 400 ppm (766 mg/m³)<br>② 500 ppm (958 mg/m³) |
| SI<br>from 4 Dec 2018 | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 1,000 ppm (1,920 mg/m³)<br>② 8,000 ppm (15,360 mg/m³)<br>⑤ EU1 |
| HU<br>from 7 Feb 2020 | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 1,920 mg/m³<br>⑤ N |
| NL<br>from 1 Jan 2023 | **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | ① 495 ppm (950 mg/m³)<br>② 781 ppm (1,500 mg/m³) |
| CH<br>from 1 Jan 2022 | **isobutane**<br>CAS No.: 75-28-5<br>EC No.: 200-857-2 | ① 800 ppm (1,900 mg/m³)<br>② 3,200 ppm (7,600 mg/m³)<br>⑤ Tox: ZNS |
| HTP (FI) | **isobutane**<br>CAS No.: 75-28-5<br>EC No.: 200-857-2 | ① 800 ppm (1,900 mg/m³)<br>② 1,000 ppm (2,400 mg/m³)<br>⑤ liite 4 |
| MAK (AT) | **isobutane**<br>CAS No.: 75-28-5<br>EC No.: 200-857-2 | ② 1,600 ppm (3,800 mg/m³)<br>⑤ (max. 3x60 min./SchichtMomentanwert) |
| BE<br>from 3 Oct 2018 | **isobutane**<br>CAS No.: 75-28-5<br>EC No.: 200-857-2 | ② 980 ppm (2,370 mg/m³) |
| TSH (SK)<br>from 1 May 2019 | **isobutane**<br>CAS No.: 75-28-5<br>EC No.: 200-857-2 | ① 1,000 ppm (2,400 mg/m³)<br>⑤ karc 1A |
| SI | **isobutane**<br>CAS No.: 75-28-5<br>EC No.: 200-857-2 | ① 1,000 ppm (2,400 mg/m³)<br>② 4,000 ppm (9,600 mg/m³) |
| IE<br>from 21 Aug 2018 | **isobutane**<br>CAS No.: 75-28-5<br>EC No.: 200-857-2 | ② 1,000 ppm |
| ACGIH (US)<br>from 1 Jan 2017 | **isobutane**<br>CAS No.: 75-28-5<br>EC No.: 200-857-2 | ① 1,000 ppm |
| TRGS 900 (DE) | **isobutane**<br>CAS No.: 75-28-5<br>EC No.: 200-857-2 | ① 1,000 ppm (2,400 mg/m³)<br>② 4,000 ppm (9,600 mg/m³)<br>⑤ DFG |
| MAK (AT) | **isobutane**<br>CAS No.: 75-28-5<br>EC No.: 200-857-2 | ① 800 ppm (1,900 mg/m³) |
| CH<br>from 1 Jan 2022 | **propane**<br>CAS No.: 74-98-6<br>EC No.: 200-827-9 | ① 1,000 ppm (1,800 mg/m³)<br>② 4,000 ppm (7,200 mg/m³)<br>⑤ Tox: Formal; Messmeth: NIOSH |

| Limit value type (country of origin) | Substance name | ① Long-term occupational exposure limit value<br>② Short-term occupational exposure limit value<br>③ Instantaneous value<br>④ Monitoring and observation processes<br>⑤ Remark |
|---|---|---|
| PL | **propane**<br>CAS No.: 74-98-6<br>EC No.: 200-827-9 | ① 1,800 mg/m³ |
| NO | **propane**<br>CAS No.: 74-98-6<br>EC No.: 200-827-9 | ① 500 ppm (900 mg/m³) |
| HTP (FI) | **propane**<br>CAS No.: 74-98-6<br>EC No.: 200-827-9 | ① 800 ppm (1,500 mg/m³)<br>② 1,100 ppm (2,000 mg/m³)<br>⑤ liite 4 |
| TRGS 900 (DE) | **propane**<br>CAS No.: 74-98-6<br>EC No.: 200-827-9 | ① 1,000 ppm (1,800 mg/m³)<br>② 4,000 ppm (7,200 mg/m³)<br>⑤ DFG |
| DK | **propane**<br>CAS No.: 74-98-6<br>EC No.: 200-827-9 | ① 1,000 ppm (1,800 mg/m³)<br>② 2,000 ppm (3,600 mg/m³) |
| BE | **propane**<br>CAS No.: 74-98-6<br>EC No.: 200-827-9 | ① 1,000 ppm |
| MAK (AT) | **propane**<br>CAS No.: 74-98-6<br>EC No.: 200-827-9 | ② 2,000 ppm (3,600 mg/m³)<br>⑤ (max. 3x60 min./Schicht, Momentanwert) |
| MAK (AT) | **propane**<br>CAS No.: 74-98-6<br>EC No.: 200-827-9 | ① 1,000 ppm (1,800 mg/m³) |
| SI | **propane**<br>CAS No.: 74-98-6<br>EC No.: 200-827-9 | ① 1,000 ppm (1,800 mg/m³)<br>② 4,000 ppm (7,200 mg/m³) |

**8.1.2. Biological limit values**

No data available

**8.1.3. DNEL-/PNEC-values**

| Substance name | DNEL value | ① DNEL type<br>② Exposure route |
|---|---|---|
| **4,4'-Methylendiphenyldiisocyanat, Isomere und Homologe**<br>CAS No.: 9016-87-9<br>EC No.: 618-498-9 | 0.05 mg/m³ | ① DNEL worker<br>② Long-term – inhalation, local effects |
| **4,4'-Methylendiphenyldiisocyanat, Isomere und Homologe**<br>CAS No.: 9016-87-9<br>EC No.: 618-498-9 | 0.025 mg/m³ | ① DNEL Consumer<br>② Long-term – inhalation, local effects |
| **4,4'-Methylendiphenyldiisocyanat, Isomere und Homologe**<br>CAS No.: 9016-87-9<br>EC No.: 618-498-9 | 0.1 mg/m³ | ① DNEL worker<br>② Acute - inhalation, local effects |
| **4,4'-Methylendiphenyldiisocyanat, Isomere und Homologe**<br>CAS No.: 9016-87-9<br>EC No.: 618-498-9 | 0.05 mg/m³ | ① DNEL Consumer<br>② Acute - inhalation, local effects |
| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran**<br>CAS No.: 1244733-77-4<br>EC No.: 807-935-0 | 8.2 mg/m³ | ① DNEL worker<br>② Long-term – inhalation, systemic effects |
| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran**<br>CAS No.: 1244733-77-4<br>EC No.: 807-935-0 | 1.45 mg/m³ | ① DNEL Consumer<br>② Long-term – inhalation, systemic effects |

| Substance name | DNEL value | ① DNEL type<br>② Exposure route |
|---|---|---|
| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran**<br>CAS No.: 1244733-77-4<br>EC No.: 807-935-0 | 2.91 mg/kg | ① DNEL worker<br>② Long-term - dermal, systemic effects |
| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran**<br>CAS No.: 1244733-77-4<br>EC No.: 807-935-0 | 1.04 mg/kg | ① DNEL Consumer<br>② Long-term - dermal, systemic effects |
| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran**<br>CAS No.: 1244733-77-4<br>EC No.: 807-935-0 | 0.52 mg/kg | ① DNEL Consumer<br>② Long-term - oral, systemic effects |
| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran**<br>CAS No.: 1244733-77-4<br>EC No.: 807-935-0 | 2 mg/kg | ① DNEL Consumer<br>② Acute – oral, systemic effects |
| **Polymer with 2-Butyne-1,4-Diol and (Chlormethyl-)Oxirane,Brominated,Dehydrochorinated,Methoxylated**<br>CAS No.: 86675-46-9<br>EC No.: 617-903-6 | 6 mg/kg | ① DNEL worker<br>② Long-term – inhalation, systemic effects |
| **Polymer with 2-Butyne-1,4-Diol and (Chlormethyl-)Oxirane,Brominated,Del**<br>CAS No.: 86675-46-9<br>EC No.: 617-903-6 | 1.5 mg/m³ | ① DNEL Consumer<br>② Long-term – inhalation, systemic effects |
| **Polymer with 2-Butyne-1,4-Diol and (Chlormethyl-)Oxirane,Brominated,Dehydrochorinated,Methoxylated**<br>CAS No.: 86675-46-9<br>EC No.: 617-903-6 | 4.5 mg/m³ | ① DNEL Consumer<br>② Acute - inhalation, systemic effects |
| **Polymer with 2-Butyne-1,4-Diol and (Chlormethyl-)Oxirane,Brominated,Del**<br>CAS No.: 86675-46-9<br>EC No.: 617-903-6 | 0.87 mg/kg | ① DNEL worker<br>② Long-term - dermal, systemic effects |
| **Polymer with 2-Butyne-1,4-Diol and (Chlormethyl-)Oxirane,Brominated,Dehydrochorinated,Methoxylated**<br>CAS No.: 86675-46-9<br>EC No.: 617-903-6 | 0.44 mg/kg | ① DNEL Consumer<br>② Long-term - dermal, systemic effects |
| **Polymer with 2-Butyne-1,4-Diol and (Chlormethyl-)Oxirane,Brominated,Del**<br>CAS No.: 86675-46-9<br>EC No.: 617-903-6 | 1.3 mg/kg | ① DNEL Consumer<br>② Acute – dermal, systemic effects |
| **Polymer with 2-Butyne-1,4-Diol and (Chlormethyl-)Oxirane,Brominated,Dehydrochorinated,Methoxylated**<br>CAS No.: 86675-46-9<br>EC No.: 617-903-6 | 0.44 mg/kg | ① DNEL Consumer<br>② Long-term - oral, systemic effects |
| **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | 1,894 mg/m³ | ① DNEL worker<br>② Long-term – inhalation, systemic effects |
| **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | 471 mg/m³ | ① DNEL Consumer<br>② Long-term – inhalation, systemic effects |
| **1,1-difluoroethane**<br>CAS No.: 75-37-6<br>EC No.: 200-866-1 | 2,713 mg/m³ | ① DNEL worker<br>② Long-term – inhalation, systemic effects |
| **1,1-difluoroethane**<br>CAS No.: 75-37-6<br>EC No.: 200-866-1 | 675 mg/m³ | ① DNEL Consumer<br>② Long-term – inhalation, systemic effects |
| **triethyl phosphate**<br>CAS No.: 78-40-0<br>EC No.: 201-114-5 | 9.9 mg/m³ | ① DNEL worker<br>② Long-term – inhalation, systemic effects |

| Substance name | DNEL value | ① DNEL type<br>② Exposure route |
|---|---|---|
| **triethyl phosphate**<br>CAS No.: 78-40-0<br>EC No.: 201-114-5 | 1.74 mg/m³ | ① DNEL Consumer<br>② Long-term – inhalation, systemic effects |
| **triethyl phosphate**<br>CAS No.: 78-40-0<br>EC No.: 201-114-5 | 2 mg/kg | ① DNEL worker<br>② Long-term - dermal, systemic effects |
| **triethyl phosphate**<br>CAS No.: 78-40-0<br>EC No.: 201-114-5 | 1 mg/kg | ① DNEL Consumer<br>② Long-term - dermal, systemic effects |
| **triethyl phosphate**<br>CAS No.: 78-40-0<br>EC No.: 201-114-5 | 1 mg/kg | ① DNEL Consumer<br>② Long-term - oral, systemic effects |
| **triethyl phosphate**<br>CAS No.: 78-40-0<br>EC No.: 201-114-5 | 5 mg/kg | ① DNEL Consumer<br>② Acute – oral, systemic effects |

| Substance name | PNEC Value | ① PNEC type |
|---|---|---|
| **4,4'-Methylendiphenyldiisocyanat, Isomere und Homologe**<br>CAS No.: 9016-87-9<br>EC No.: 618-498-9 | 1 mg/L | ① PNEC aquatic, freshwater |
| **4,4'-Methylendiphenyldiisocyanat, Isomere und Homologe**<br>CAS No.: 9016-87-9<br>EC No.: 618-498-9 | 0.1 mg/L | ① PNEC aquatic, marine water |
| **4,4'-Methylendiphenyldiisocyanat, Isomere und Homologe**<br>CAS No.: 9016-87-9<br>EC No.: 618-498-9 | 1 mg/L | ① PNEC sewage treatment plant |
| **4,4'-Methylendiphenyldiisocyanat, Isomere und Homologe**<br>CAS No.: 9016-87-9<br>EC No.: 618-498-9 | 1 mg/kg | ① PNEC soil |
| **4,4'-Methylendiphenyldiisocyanat, Isomere und Homologe**<br>CAS No.: 9016-87-9<br>EC No.: 618-498-9 | 10 mg/L | ① PNEC aquatic, intermittent release |
| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran**<br>CAS No.: 1244733-77-4<br>EC No.: 807-935-0 | 0.32 mg/L | ① PNEC aquatic, freshwater |
| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran**<br>CAS No.: 1244733-77-4<br>EC No.: 807-935-0 | 0.032 mg/L | ① PNEC aquatic, marine water |
| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran**<br>CAS No.: 1244733-77-4<br>EC No.: 807-935-0 | 19.1 mg/L | ① PNEC sewage treatment plant |
| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran**<br>CAS No.: 1244733-77-4<br>EC No.: 807-935-0 | 11.5 mg/kg | ① PNEC sediment, freshwater |
| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran**<br>CAS No.: 1244733-77-4<br>EC No.: 807-935-0 | 1.15 mg/kg | ① PNEC sediment, marine water |

| Substance name | PNEC Value | ① PNEC type |
|---|---|---|
| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran**<br>CAS No.: 1244733-77-4<br>EC No.: 807-935-0 | 0.34 mg/kg | ① PNEC soil |
| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran**<br>CAS No.: 1244733-77-4<br>EC No.: 807-935-0 | 0.0116 g/kg | ① PNEC secondary poisoning |
| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran**<br>CAS No.: 1244733-77-4<br>EC No.: 807-935-0 | 0.51 mg/L | ① PNEC aquatic, intermittent release |
| **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | 0.155 mg/L | ① PNEC aquatic, freshwater |
| **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | 0.019 mg/L | ① PNEC aquatic, marine water |
| **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | 160 mg/L | ① PNEC sewage treatment plant |
| **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | 0.681 mg/kg | ① PNEC sediment, freshwater |
| **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | 0.069 mg/kg | ① PNEC sediment, marine water |
| **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | 0.045 mg/kg | ① PNEC soil |
| **dimethyl ether**<br>CAS No.: 115-10-6<br>EC No.: 204-065-8 | 1.549 mg/L | ① PNEC aquatic, intermittent release |
| **1,1-difluoroethane**<br>CAS No.: 75-37-6<br>EC No.: 200-866-1 | 0.048 mg/L | ① PNEC aquatic, freshwater |
| **1,1-difluoroethane**<br>CAS No.: 75-37-6<br>EC No.: 200-866-1 | 0.005 mg/L | ① PNEC aquatic, marine water |
| **1,1-difluoroethane**<br>CAS No.: 75-37-6<br>EC No.: 200-866-1 | 0.19 mg/kg | ① PNEC sediment, freshwater |
| **1,1-difluoroethane**<br>CAS No.: 75-37-6<br>EC No.: 200-866-1 | 0.019 mg/kg | ① PNEC sediment, marine water |
| **1,1-difluoroethane**<br>CAS No.: 75-37-6<br>EC No.: 200-866-1 | 0.141 mg/kg | ① PNEC soil |
| **1,1-difluoroethane**<br>CAS No.: 75-37-6<br>EC No.: 200-866-1 | 0.48 mg/L | ① PNEC aquatic, intermittent release |
| **triethyl phosphate**<br>CAS No.: 78-40-0<br>EC No.: 201-114-5 | 0.632 mg/L | ① PNEC aquatic, freshwater |
| **triethyl phosphate**<br>CAS No.: 78-40-0<br>EC No.: 201-114-5 | 0.063 mg/L | ① PNEC aquatic, marine water |
| **triethyl phosphate**<br>CAS No.: 78-40-0<br>EC No.: 201-114-5 | 298.5 mg/L | ① PNEC sewage treatment plant |

| Substance name | PNEC Value | ① PNEC type |
|---|---|---|
| **triethyl phosphate**<br>CAS No.: 78-40-0<br>EC No.: 201-114-5 | 5 mg/kg | ① PNEC sediment, freshwater |
| **triethyl phosphate**<br>CAS No.: 78-40-0<br>EC No.: 201-114-5 | 0.5 mg/kg | ① PNEC sediment, marine water |
| **triethyl phosphate**<br>CAS No.: 78-40-0<br>EC No.: 201-114-5 | 0.64 mg/L | ① PNEC soil |
| **triethyl phosphate**<br>CAS No.: 78-40-0<br>EC No.: 201-114-5 | 9 mg/L | ① PNEC aquatic, intermittent release |

### 8.2. Exposure controls

**8.2.1. Appropriate engineering controls**

No data available

**8.2.2. Personal protection equipment**

**Eye/face protection:**

Eye glasses with side protection Eye/face protection EN 166 EN 167 EN 168 EN ISO 4007

**Skin protection:**

Tested protective gloves must be worn In the case of wanting to use the gloves again, clean them before taking off and air them well. EN ISO 374 -1, EN 16523-1, EN 420

**Respiratory protection:**

Filtering Half-face mask (EN 149) EN 405 EN ISO 136

**8.2.3. Environmental exposure controls**

Safety, health and environmental regulations specific for the product in question

## SECTION 9: Physical and chemical properties

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

**Appearance**

**Physical state:** Aerosol **Colour:** blue

**Odour:** not determined

**Safety relevant basis data**

| Parameter | Value | at °C | ① Method<br>② Remark |
|---|---|---|---|
| pH | *not determined* | | |
| Melting point | *not determined* | | |
| Freezing point | *not determined* | | |
| Initial boiling point and boiling range | -12 °C | | |
| Decomposition temperature | *not determined* | | |
| Flash point | ≈ 460 °C | | |
| Evaporation rate | *not determined* | | |
| Auto-ignition temperature | *not determined* | | |
| Upper/lower flammability or explosive limits | *not determined* | | |
| Vapour pressure | < 300 kPa | 50 °C | |
| Vapour density | *not determined* | | |
| Density | ≈ 1,101 kg/m³ | 20 °C | |
| Relative density | *not determined* | | |
| Bulk density | *not determined* | | |
| Water solubility | *not determined* | | |
| Partition coefficient: n-octanol/water | *not determined* | | |
| Dynamic viscosity | *not determined* | | |
| Kinematic viscosity | *not determined* | | |

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

**Aerosols:**
Aerosol 2

## SECTION 10: Stability and reactivity

### 10.1. Reactivity
No known hazardous reactions. Further information on proper storage: see section 7.

### 10.2. Chemical stability
The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

### 10.4. Conditions to avoid
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from direct sunlight.

### 10.5. Incompatible materials
Strong alkali Strong acid

### 10.6. Hazardous decomposition products
Carbon dioxide (CO2) Carbon monoxide

## SECTION 11: Toxicological information

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

**Toxicological information**

| |
|---|
| **Acute Toxicity Estimate for Mixtures** |
| **ATE (oral):** ≈2,506.84 mg/kg Berechnungsmethode |
| **ATE (dermal):** >2,000 mg/kg Berechnungsmethode |
| **ATE (inhalation, dust/mist):** ≈23.14 mg/L 4h Berechnungsmethode |
| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran** CAS No.: 1244733-77-4 EC No.: 807-935-0 |
| **$LD_{50}$ oral:** =632 mg/kg (Ratte) |
| **$LD_{50}$ dermal:** >2,000 mg/kg |
| **$LC_{50}$ Acute inhalation toxicity (dust/mist):** >20 mg/L |
| **4,4'-Methylendiphenyldiisocyanat, Isomere und Homologe** CAS No.: 9016-87-9 EC No.: 618-498-9 |
| **$LD_{50}$ oral:** >2,000 mg/kg |
| **$LD_{50}$ dermal:** >2,000 mg/kg |
| **$LC_{50}$ Acute inhalation toxicity (dust/mist):** ≈11 mg/L ATEi |
| **propane** CAS No.: 74-98-6 EC No.: 200-827-9 |
| **$LD_{50}$ oral:** >2,000 mg/kg |
| **$LD_{50}$ dermal:** >2,000 mg/kg |
| **$LC_{50}$ Acute inhalation toxicity (dust/mist):** >5 mg/L |
| **dimethyl ether** CAS No.: 115-10-6 EC No.: 204-065-8 |
| **$LD_{50}$ oral:** >2,000 mg/kg |
| **$LD_{50}$ dermal:** >2,000 mg/kg |
| **$LC_{50}$ Acute inhalation toxicity (dust/mist):** ≈308.5 mg/L 4 h (Ratte) |
| **isobutane** CAS No.: 75-28-5 EC No.: 200-857-2 |
| **$LD_{50}$ oral:** >2,000 mg/kg |
| **$LD_{50}$ dermal:** >2,000 mg/kg |
| **$LC_{50}$ Acute inhalation toxicity (dust/mist):** >5 mg/L |
| **Polymer with 2-Butyne-1,4-Diol and (Chlormethyl-)Oxirane,Bromineted,Dehydrochorinated,Methoxylated** CAS No.: 86675-46-9 EC No.: 617-903-6 |
| **$LD_{50}$ oral:** ≈917 mg/kg (Ratte) |
| **$LD_{50}$ dermal:** >2,000 mg/kg |
| **$LC_{50}$ Acute inhalation toxicity (dust/mist):** >20 mg/L |
| **1,1-difluoroethane** CAS No.: 75-37-6 EC No.: 200-866-1 |
| **$LD_{50}$ oral:** >2,000 mg/kg |
| **$LD_{50}$ dermal:** >2,000 mg/kg |
| **$LC_{50}$ Acute inhalation toxicity (dust/mist):** >5 mg/L |

| **triethyl phosphate** CAS No.: 78-40-0 EC No.: 201-114-5 |
|---|
| **$LD_{50}$ oral:** ≈500 mg/kg ATEI |
| **$LD_{50}$ dermal:** >2,000 mg/kg |
| **$LC_{50}$ Acute inhalation toxicity (dust/mist):** >20 mg/L |

**Acute oral toxicity:**
Based on available data, the classification criteria are not met.

**Acute dermal toxicity:**
Prolonged or repeated contact with skin or mucous membrane result in irritation symptoms such as redness, blistering, dermatitis, etc.

**Acute inhalation toxicity:**
Harmful if inhaled.

**Skin corrosion/irritation:**
Causes skin irritation.

**Serious eye damage/irritation:**
Causes serious eye irritation.

**Respiratory or skin sensitisation:**
May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

**Germ cell mutagenicity:**
Based on available data, the classification criteria are not met.

**Carcinogenicity:**
Suspected of causing cancer.

**Reproductive toxicity:**
Based on available data, the classification criteria are not met.

**STOT-single exposure:**
May cause respiratory irritation.

**STOT-repeated exposure:**
May cause damage to organs through prolonged or repeated exposure. Headache Dizziness Nausea Vomiting Impaired consciousness

**Aspiration hazard:**
Based on available data, the classification criteria are not met.

**Additional information:**
No data available

### 11.2. Information on other hazards

**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.

## SECTION 12: Ecological information

### 12.1. Toxicity

| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran** CAS No.: 1244733-77-4 EC No.: 807-935-0 |
|---|
| **$LC_{50}$:** =100 mg/L 4 d (fish, Danio rerio) |
| **$EC_{50}$:** =131 mg/L 2 d (crustaceans, Daphnia magna) |
| **$EC_{50}$:** =82 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata) |
| **NOEC:** =32 mg/L (crustaceans, Daphnia magna) |

### 12.2. Persistence and degradability

| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran** CAS No.: 1244733-77-4 EC No.: 807-935-0 |
|---|
| **Biodegradation:** — |

**Biodegradation:**

20mg/l 28 Tage 14%

### 12.3. Bioaccumulative potential

| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran** CAS No.: 1244733-77-4 EC No.: 807-935-0 |
|---|
| **Log $K_{OW}$:** = 3.17 |
| **Bioconcentration factor (BCF):** = 8 |
| **propane** CAS No.: 74-98-6 EC No.: 200-827-9 |
| **Log $K_{OW}$:** = 2.86 |
| **Bioconcentration factor (BCF):** = 13 |

| **isobutane** CAS No.: 75-28-5 EC No.: 200-857-2 |
|---|
| **Log $K_{OW}$:** = 2.76 |
| **Bioconcentration factor (BCF):** = 27 |

### 12.4. Mobility in soil

Volatility Henry : 1244733-77-4: 6E-3 Pa* m³/mol; 75-28-5: 120576,75 Pa* m³/mol; 74-98-6: 71636,78 Pa* m³/mol

Absorption Koc : 1244733-77-4: 324,2; 75-28-5: 35; 74-986: 460;

### 12.5. Results of PBT and vPvB assessment

| **Reaktionsprodukte von Phosphoryltrichlorid und 2-Methyloxiran** CAS No.: 1244733-77-4 EC No.: 807-935-0 |
|---|
| **Results of PBT and vPvB assessment:** This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |
| **propane** CAS No.: 74-98-6 EC No.: 200-827-9 |
| **Results of PBT and vPvB assessment:** This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |
| **isobutane** CAS No.: 75-28-5 EC No.: 200-857-2 |
| **Results of PBT and vPvB assessment:** This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

### 12.6. 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.

### 12.7. Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### 13.1.1. Product/Packaging disposal

**Waste codes/waste designations according to EWC/AVV**

**Waste code product**

| | |
|---|---|
| 16 05 04 * | Gases in pressure containers (including halons) containing hazardous substances |

**: Evidence for disposal must be provided.*

**Directive 2008/98/EC (Waste Framework Directive)**

| | |
|---|---|
| HP 3 | Flammable |
| HP 4 | Irritant — skin irritation and eye damage |
| HP 5 | Specific Target Organ Toxicity (STOT)/Aspiration Toxicity |
| HP 6 | Acute Toxicity |
| HP 7 | carcinogenic |
| HP 13 | Sensitising |

**Remark:**

Do not allow to enter into surface water or drains.

**Waste code packaging**

**Remark:**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

**Waste treatment options**

**Appropriate disposal / Product:**

Consult the appropriate local waste disposal expert about waste disposal.

**Appropriate disposal / Package:**

Consult the appropriate local waste disposal expert about waste disposal.

### 13.2. Additional information

No data available

## SECTION 14: Transport information

| **Land transport (ADR/RID)** | **Inland waterway craft (ADN)** | **Sea transport (IMDG)** | **Air transport (ICAO-TI / IATA-DGR)** |
|---|---|---|---|
| **14.1. UN number or ID number** | | | |
| UN 1950 | UN 1950 | UN 1950 | UN 1950 |
| **14.2. UN proper shipping name** | | | |
| AEROSOLS, FLAMMABLE | AEROSOLS, FLAMMABLE | AEROSOLS, FLAMMABLE | AEROSOLS, FLAMMABLE |

| Land transport (ADR/RID) | Inland waterway craft (ADN) | Sea transport (IMDG) | Air transport (ICAO-TI / IATA-DGR) |
|---|---|---|---|
| **14.3. Transport hazard class(es)** | | | |
|  2.1 |  2.1 |  2.1 |  2.1 |
| **14.4. Packing group** | | | |
| | | - | |
| **14.5. Environmental hazards** | | | |
| No | No | No | No |
| **14.6. Special precautions for user** | | | |
| **Special Provisions:** 190,327,344,625<br>**Limited quantity (LQ):** 1 L<br>**Classification code:** -<br>**Tunnel restriction code:** (D) | **Limited quantity (LQ):** 1 L<br>**Classification code:** - | **Special Provisions:** 63,959,190,277,327,344<br>**Limited quantity (LQ):** 1 L<br>**EmS-No.:** F-D, S-U | **Limited quantity (LQ):** 1 L |

### 14.7. Maritime transport in bulk according to IMO instruments
not relevant

## SECTION 15: Regulatory information

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

#### 15.1.1. EU legislation

**Authorisations:**
is subject to the restrictions in Annex XVII of Regulation (EC) No. 1907/2006: diphenylmethane diisocyanate, isomers and homologues

**Restrictions on use:**
diphenylmethane diisocyanate, isomers and homologues Exempted uses:Decorative effect coatings, aerosol for entertainment or decoration purposes.

**Other regulations (EU):**
Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]:
This product is not assigned to a hazard category.
Notification number according to 'Giftinformationsverordnung (ChemGiftInfoVO)':Hazardous Substances Ordinance (GefStoffV)Chemical Ozone Layer Ordinance (ChemOzonSchichtV)§ 2 ChemVerbotsV § 3 ChemVerbotsV § 4 ChemVerbotsV Annex Chemikalien-Verbotsverordnung (ChemVerbotsV) German Chemicals Prohibition Ordinance (ChemVerbotsV)Aerosol Directive (75/324/)Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP] Labelling according to Regulation (EC) No. 1272/2008 [CLP]

**Directive 2004/42/EC on the limitation of emissions of volatile organic compounds:**
Volatile organic compounds (VOC) content in percent by weight: 17.96 weight-%

#### 15.1.2. National regulations

**[DE] National regulations**

**Restrictions of occupation**
is subject to the restrictions in Annex XVII of Regulation (EC) No. 1907/2006 Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

**Störfallverordnung (12. BImschV)**

**for substances contained in the product:**
This product is not assigned to a hazard category.

**Water hazard class**

**WGK:**
1 - slightly hazardous to water

### 15.2. Chemical Safety Assessment
Chemical safety assessments for substances in this mixture were not carried out.

### 15.3. Additional information
No data available

## SECTION 16: Other information

### 16.1. Indication of changes

| | |
|---|---|
| 1.4. | Emergency telephone number |
| 8.1. | Control parameters |

## 16.2. Abbreviations and acronyms

| | |
|---|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| BCF | Bioconcentration Factor |
| CAS | Chemical Abstracts Service |
| CLP | Classification, Labelling and Packaging |
| DIN | German Institute for Standardization / German Industrial Standard |
| DNEL | derived no-effect level |
| $EC_{50}$ | Effective Concentration 50% |
| EN | European Standard |
| ES | Exposure scenario |
| EWC | European Waste Catalogue |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods |
| IMO | International Maritime Organization |
| $LC_{50}$ | Lethal (fatal) Concentration 50% |
| $LD_{50}$ | Lethal (fatal) Dose 50% |
| MAK | Maximum concentration in the workplace air (CH) |
| NFPA | National Fire Protection Association |
| NIOSH | National Institute for Occupational Safety & Health |
| NOEC | No Observed Effect Concentration |
| OSHA | Occupational Safety & Health Administration |
| PBT | persistent and bioaccumulative and toxic |
| PNEC | Predicted No Effect Concentration |
| REACH | Registration, Evaluation and Authorization of Chemicals |
| RID | Dangerous goods regulations for transport by rail |
| TRGS | Technische Regeln für Gefahrstoffe |
| UN | United Nations |
| VOC | Volatile organic compounds |
| ZNS | central nervous system |

## 16.3. Key literature references and sources for data

http://echa.europa.eu http://eur-lex.europa.de

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

| Hazard classes and hazard categories | Hazard statements | Classification procedure |
|---|---|---|
| Aerosols *(Aerosol 1)* | H222; H229: Extremely flammable aerosol. Pressurised container: May burst if heated. | |
| Skin corrosion/irritation *(Skin Irrit. 2)* | H315: Causes skin irritation. | |
| Respiratory or skin sensitisation *(Skin Sens. 1)* | H317: May cause an allergic skin reaction. | |
| Serious eye damage/eye irritation *(Eye Irrit. 2)* | H319: Causes serious eye irritation. | |
| Respiratory or skin sensitisation *(Resp. Sens. 1)* | H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. | |
| STOT-single exposure *(STOT SE 3)* | H335: May cause respiratory irritation. | |
| Carcinogenicity *(Carc. 2)* | H351: Suspected of causing cancer. | |
| STOT-repeated exposure *(STOT RE 2)* | H373: May cause damage to organs through prolonged or repeated exposure. (Inhalation) | |

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

| Hazard statements | |
|---|---|
| H220 | Extremely flammable gas. |
| H280 | Contains gas under pressure; may explode if heated. |
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |

| **Hazard statements** | |
|---|---|
| H340 | May cause genetic defects. |
| H350 | May cause cancer. |
| H351 | Suspected of causing cancer. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |

### 16.6. Training advice

Regular employee training is required by law when working with hazardous substances.

### 16.7. Additional information

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* Data changed compared with the previous version.