# Nitroverdünner

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 3/16/2020 Revision date: 3/11/2024 Supersedes: 3/29/2023 Version: 1.3
SDS No: 12236-0016

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

### 1.1. Product identifier

Product form : Mixture
Product name : Nitroverdünner

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

#### 1.2.1. Relevant identified uses

Use of the substance/mixture : Solvent mixture

#### 1.2.2. Uses advised against

Restrictions on use : For professional users only

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

Rey Chemie AG
Pilatusstrasse 31
5630 Muri
Switzerland
T +41 56 664 11 28
info@reychemie.ch

### 1.4. Emergency telephone number

Emergency number : NATIONAL: Tox Info Suisse: Tel. 145 (24 h)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

| | |
|---|---|
| Flammable liquids, Category 2 | H225 |
| Skin corrosion/irritation, Category 2 | H315 |
| Serious eye damage/eye irritation, Category 1 | H318 |
| Reproductive toxicity, Category 2 | H361d |
| Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation | H335 |
| Specific target organ toxicity – Single exposure, Category 3, Narcosis | H336 |
| Specific target organ toxicity – Repeated exposure, Category 2 | H373 |
| Aspiration hazard, Category 1 | H304 |

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

**Adverse physicochemical, human health and environmental effects**

Highly flammable liquid and vapour. May cause drowsiness or dizziness. Causes skin irritation. May be fatal if swallowed and enters airways. Causes serious eye damage. May cause respiratory irritation. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure.

### 2.2. Label elements

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

Hazard pictograms (CLP) :

Signal word (CLP) : Danger
Contains : Benzene, methyl-; Xylene; Ethylacetate; Butanone; isobutyl acetate; methyl acetate; Isobutanol; propan-2-ol; isopropyl alcohol; isopropanol; Methanol

| | | |
|---|---|---|
| Hazard statements (CLP) | : | H225 - Highly flammable liquid and vapour.<br>H304 - May be fatal if swallowed and enters airways.<br>H315 - Causes skin irritation.<br>H318 - Causes serious eye damage.<br>H335 - May cause respiratory irritation.<br>H336 - May cause drowsiness or dizziness.<br>H361d - Suspected of damaging the unborn child.<br>H373 - May cause damage to organs through prolonged or repeated exposure. |
| Precautionary statements (CLP) | : | P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.<br>P243 - Take action to prevent static discharges.<br>P280 - Wear protective clothing, eye protection, face protection, protective gloves.<br>P310 - Immediately call a POISON CENTER or doctor.<br>P331 - Do NOT induce vomiting.<br>P405 - Store locked up. |
| Extra phrases | : | Restricted to professional users. |

### 2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|---|---|
| Benzene, methyl-<br>Substance with a Community workplace exposure limit | CAS-No.: 108-88-3<br>EC-No.: 203-625-9<br>EC Index-No.: 601-021-00-3<br>REACH-no: 01-2119471310-51 | 25 - 50 | Flam. Liq. 2, H225<br>Repr. 2, H361d<br>Asp. Tox. 1, H304<br>STOT RE 2, H373<br>Skin Irrit. 2, H315<br>STOT SE 3, H336 |
| Xylene | CAS-No.: 1330-20-7<br>EC-No.: 215-535-7<br>REACH-no: 01-2119488216-32 | 10 - 15 | Flam. Liq. 3, H226<br>Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight)<br>Acute Tox. 4 (Inhalation:dust,mist), H332 (ATE=1.5 mg/l/4h)<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>STOT SE 3, H335<br>STOT RE 2, H373<br>Asp. Tox. 1, H304<br>Aquatic Chronic 3, H412 |
| Ethylacetate<br>Substance with a Community workplace exposure limit | CAS-No.: 141-78-6<br>EC-No.: 205-500-4<br>EC Index-No.: 607-022-00-5<br>REACH-no: 01-2119475103-46 | 2,5 - 10 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336<br>EUH066 |

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|---|---|
| Butanone<br>Substance with a Community workplace exposure limit | CAS-No.: 78-93-3<br>EC-No.: 201-159-0<br>EC Index-No.: 606-002-00-3<br>REACH-no: 01-2119457290-43 | 2,5 - 10 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336<br>EUH066 |
| isobutyl acetate<br>(Note C) | CAS-No.: 110-19-0<br>EC-No.: 203-745-1<br>EC Index-No.: 607-026-00-7<br>REACH-no: 01-2119488971-22 | 2,5 - 10 | Flam. Liq. 2, H225<br>STOT SE 3, H335<br>EUH066 |
| methyl acetate | CAS-No.: 79-20-9<br>EC-No.: 201-185-2<br>EC Index-No.: 607-021-00-X | 2,5 - 10 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336<br>EUH066 |
| Isobutanol | CAS-No.: 78-83-1<br>EC-No.: 201-148-0<br>EC Index-No.: 603-108-00-1<br>REACH-no: 01-2119484609-23 | 2,5 - 10 | Flam. Liq. 3, H226<br>Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>STOT SE 3, H335<br>STOT SE 3, H336 |
| propan-2-ol; isopropyl alcohol; isopropanol | CAS-No.: 67-63-0<br>EC-No.: 200-661-7<br>EC Index-No.: 603-117-00-0<br>REACH-no: 01-2119457558-25 | 2,5 - 10 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336 |
| 1-methoxy-2-propanol; monopropylene glycol methyl ether<br>Substance with a Community workplace exposure limit | CAS-No.: 107-98-2<br>EC-No.: 203-539-1<br>EC Index-No.: 603-064-00-3<br>REACH-no: 01-2119457435-35 | 2,5 - 10 | Flam. Liq. 3, H226<br>STOT SE 3, H336 |
| Methanol<br>Substance with a Community workplace exposure limit | CAS-No.: 67-56-1<br>EC-No.: 200-659-6<br>EC Index-No.: 603-001-00-X<br>REACH-no: 01-2119433307-44 | < 2,5 | Flam. Liq. 2, H225<br>Acute Tox. 3 (Oral), H301 (ATE=100 mg/kg bodyweight)<br>Acute Tox. 3 (Dermal), H311 (ATE=300 mg/kg bodyweight)<br>Acute Tox. 3 (Inhalation:dust,mist), H331 (ATE=0.5 mg/l/4h)<br>STOT SE 1, H370 |

| Specific concentration limits: | | |
|---|---|---|
| **Name** | **Product identifier** | **Specific concentration limits (%)** |
| Methanol | CAS-No.: 67-56-1<br>EC-No.: 200-659-6<br>EC Index-No.: 603-001-00-X<br>REACH-no: 01-2119433307-44 | (3 ≤ C < 10) STOT SE 2, H371<br>(10 ≤ C < 100) STOT SE 1, H370 |

Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Take off immediately all contaminated clothing. In the event of persistent symptoms receive medical treatment. Take affected person away from danger area.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a physician. In case of loss of consciousness, place the victim in the recovery position.

First-aid measures after skin contact : Wash off immediately with soap and plenty of water. Treat subsequently with skin cream. Get medical advice if skin irritation persists.

First-aid measures after eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an ophthalmologist if irritation persists.

First-aid measures after ingestion : Do not induce vomiting. Attention. Beware, danger of aspiration. Call a physician immediately. Rinse mouth. Drink plenty of water.

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

Symptoms/effects after inhalation : High concentration of vapours may induce: headache, dizziness, drowsiness, nausea and vomiting.

Symptoms/effects after skin contact : Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Symptoms/effects after eye contact : May cause eye irritation.

Symptoms/effects after ingestion : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Chronic symptoms : Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure.

### 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. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : high volume water jet.

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

Explosion hazard : In use, may form flammable/explosive vapour-air mixture.

Hazardous decomposition products in case of fire : Carbon oxides (CO, CO2).

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Use self-contained breathing apparatus and chemically protective clothing.

Other information : Cool containers at risk with water spray jet. Collect contaminated firefighting water separately, must not be discharged into the drains.

## SECTION 6: Accidental release measures

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

General measures : No flames, no sparks. Eliminate all sources of ignition. Avoid contact with eyes, skin or mucous membrane. Evacuate the danger area.

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No flames, no sparks. Eliminate all sources of ignition. Evacuate unnecessary personnel. Wear personal protective equipment.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

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

For containment : Collect spillage.
Methods for cleaning up : Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

Refer to protective measures listed in sections 7 and 8. For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Avoid contact with eyes, skin or mucous membrane.
Precautions for safe handling : Handle and open container with care. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid formation of aerosols. Take precautionary measures against static discharge. Explosion free apparatus have to be used. Vapours are heavier than air and may spread along floors. Pregnant women may avoid to breathe or to have skin contact with product.
Hygiene measures : Do not inhale vapour. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Treat subsequently with skin cream. Avoid contact with skin, eyes and clothing. Take off immediately all contaminated clothing and wash it before reuse.

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

Storage conditions : Keep container tightly closed in a dry, cool and well-ventilated place. Pay attention to explosion protection guidelines.
Incompatible products : Strong oxidizing agent. Strong acids. Strong bases.
Heat and ignition sources : Keep away from heat and direct sunlight.
Information on mixed storage : Keep away from food, drink and animal feeding stuffs.
Storage area : Keep out of frost.

#### Switzerland

Storage class (LK) : LK 3 - Flammable liquids

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

| Benzene, methyl- (108-88-3) | |
|---|---|
| **Switzerland - Occupational Exposure Limits** | |
| Local name | Toluène / Toluol |
| MAK (OEL TWA) | 190 mg/m³ |
| | 50 ppm |
| KZGW (OEL STEL) | 760 mg/m³ |
| | 200 ppm |
| Notation | R, R2, $SS_C$, $O^B$, B / H, R2, $SS_C$, $O^L$, B |
| Remark | INRS, HSE, NIOSH, DFG |

| Benzene, methyl- (108-88-3) | |
|---|---|
| OEL chemical category | Category 2 developmental toxin, Category 2 reproductive toxin, Skin notation |
| Regulatory reference | www.suva.ch, 01.01.2024 |
| **Switzerland - BAT** | |
| Local name | Toluène / Toluol |
| BAT | 2 g/g creatinine (1.26 mmol/mmol cr.; Paramètre biologique: Acide hippurique; Substrat d'examen: Urine; Moment du prélèvement: Fin de l'exposition, de la période de travail. Exposition de longue durée: après plusieurs périodes de travail; Remarques: Paramètre non spécifique. Influence de l'environnement.) / (1.26 mmol/mmol cr.; Biologischer Parameter: Hippursäure; Untersuchungsmaterial: Urin; Probennahmezeitpunkt: Expositionsende, bzw. Schichtende. Bei Langzeitexposition: nach mehreren vorangegangenen Schichten; Bemerkungen: Nicht spezifischer Parameter. Umwelteinflüsse.)<br>0.5 mg/l (4.62 µmol/l; Paramètre biologique: o-Crésol; Substrat d'examen: Urine; Moment du prélèvement: Fin de l'exposition, de la période de travail. Exposition de longue durée: après plusieurs périodes de travail; Remarques: Interprétation quantitative difficile.) / (4.62 µmol/l; Biologischer Parameter: o-Kresol; Untersuchungsmaterial: Urin; Probennahmezeitpunkt: Expositionsende, bzw. Schichtende. Bei Langzeitexposition: nach mehreren vorangegangenen Schichten; Bemerkungen: Quantitative Interpretation schwierig.)<br>600 µg/l (6.48 µmol/l; Paramètre biologique: Toluène; Substrat d'examen: Sang complet; Moment du prélèvement: Fin de l'exposition, de la période de travail.) / (6.48 µmol/l; Biologischer Parameter: Toluol; Untersuchungsmaterial: Vollblut; Probennahmezeitpunkt: Expositionsende, bzw. Schichtende.)<br>75 µg/l (Paramètre biologique: Toluène; Substrat d'examen: Urine; Moment du prélèvement: Fin de l'exposition, de la période de travail.) / (Biologischer Parameter: Toluol; Untersuchungsmaterial: Urin; Probennahmezeitpunkt: Expositionsende, bzw. Schichtende.) |
| Regulatory reference | Ordonnance 832.30 (OPA), article 50 al. 3, www.suva.ch/valeurs-limites / Verordnung 832.30 (VUV), Art. 50 Abs. 3, www.suva.ch/grenzwerte |

| Xylene (1330-20-7) | |
|---|---|
| **Switzerland - Occupational Exposure Limits** | |
| Local name | Xylène (tous les isomères) / Xylol (alle Isomere) |
| MAK (OEL TWA) | 220 mg/m³ |
| | 50 ppm |
| KZGW (OEL STEL) | 440 mg/m³ |
| | 100 ppm |
| Notation | R, B / H, B |
| Remark | INRS, NIOSH |
| Regulatory reference | www.suva.ch, 01.01.2024 |

| Ethylacetate (141-78-6) | |
|---|---|
| **Switzerland - Occupational Exposure Limits** | |
| Local name | Acétate d'éthyle / Ethylacetat [Essigsäureethylester] |
| MAK (OEL TWA) | 730 mg/m³ |
| | 200 ppm |
| KZGW (OEL STEL) | 1460 mg/m³ |
| | 400 ppm |

| Ethylacetate (141-78-6) | |
|---|---|
| Notation | $SS_C$ / $SS_C$ |
| Remark | INRS, NIOSH |
| Regulatory reference | www.suva.ch, 01.01.2024 |

| Butanone (78-93-3) | |
|---|---|
| **Switzerland - Occupational Exposure Limits** | |
| Local name | 2-Butanone / 2-Butanon [Ethylmethylketon, Methylethylketon (MEK)] |
| MAK (OEL TWA) | 590 mg/m³ |
| | 200 ppm |
| KZGW (OEL STEL) | 590 mg/m³ |
| | 200 ppm |
| Notation | R, $SS_C$, B / H, $SS_C$, B |
| Remark | INRS, NIOSH, OSHA |
| Regulatory reference | www.suva.ch, 01.01.2024 |
| **Switzerland - BAT** | |
| Local name | 2-Butanone / 2-Butanon |
| BAT | 2 mg/l (27.7 µmol/l; Paramètre biologique: 2-Butanone; Substrat d'examen: Urine; Moment du prélèvement: Fin de l'exposition, de la période de travail.) / (27.7 µmol/l; Biologischer Parameter: 2-Butanon (MEK); Untersuchungsmaterial: Urin; Probennahmezeitpunkt: Expositionsende, bzw. Schichtende.) |
| Regulatory reference | Ordonnance 832.30 (OPA), article 50 al. 3, www.suva.ch/valeurs-limites / Verordnung 832.30 (VUV), Art. 50 Abs. 3, www.suva.ch/grenzwerte |

| methyl acetate (79-20-9) | |
|---|---|
| **Switzerland - Occupational Exposure Limits** | |
| Local name | Acétate de méthyle / Methylacetat [Essigsäuremethylester] |
| MAK (OEL TWA) | 310 mg/m³ |
| | 100 ppm |
| KZGW (OEL STEL) | 1240 mg/m³ |
| | 400 ppm |
| Notation | $SS_C$ / $SS_C$ |
| Remark | INRS, NIOSH |
| Regulatory reference | www.suva.ch, 01.01.2024 |

| Isobutanol (78-83-1) | |
|---|---|
| **Switzerland - Occupational Exposure Limits** | |
| Local name | Isobutanol / iso-Butanol |
| MAK (OEL TWA) | 150 mg/m³ |
| | 50 ppm |
| KZGW (OEL STEL) | 150 mg/m³ |
| | 50 ppm |
| Notation | $SS_C$ / $SS_C$ |

| Isobutanol (78-83-1) | |
|---|---|
| Remark | INRS, NIOSH |
| Regulatory reference | www.suva.ch, 01.01.2024 |

| propan-2-ol; isopropyl alcohol; isopropanol (67-63-0) | |
|---|---|
| **Switzerland - Occupational Exposure Limits** | |
| Local name | 2-Propanol / 2-Propanol [iso-Propylalkohol, Isopropanol, Isopropylalkohol] |
| MAK (OEL TWA) | 500 mg/m³ |
| | 200 ppm |
| KZGW (OEL STEL) | 1000 mg/m³ |
| | 400 ppm |
| Notation | $SS_C$, B / $SS_C$, B |
| Remark | INRS, NIOSH |
| Regulatory reference | www.suva.ch, 01.01.2024 |
| **Switzerland - BAT** | |
| Local name | 2-Propanol / 2-Propanol |
| BAT | 25 mg/l (0.4 mmol/l; Paramètre biologique: Acétone; Substrat d'examen: Sang complet; Moment du prélèvement: Fin de l'exposition, de la période de travail.) / (0.4 mmol/l; Biologischer Parameter: Aceton; Untersuchungsmaterial: Vollblut; Probennahmezeitpunkt: Expositionsende, bzw. Schichtende.)<br>25 mg/l (0.4 mmol/l; Paramètre biologique: Acétone; Substrat d'examen: Urine; Moment du prélèvement: Fin de l'exposition, de la période de travail.) / (0.4 mmol/l; Biologischer Parameter: Aceton; Untersuchungsmaterial: Urin; Probennahmezeitpunkt: Expositionsende, bzw. Schichtende.) |
| Regulatory reference | Ordonnance 832.30 (OPA), article 50 al. 3, www.suva.ch/valeurs-limites / Verordnung 832.30 (VUV), Art. 50 Abs. 3, www.suva.ch/grenzwerte |

| 1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2) | |
|---|---|
| **Switzerland - Occupational Exposure Limits** | |
| Local name | 1-Méthoxypropan-2-ol [1-Méthoxy-2-propanol, Méthoxy-1-propanol-2] / 1-Methoxypropan-2-ol [Propylenglykol-1-methylether, 2PG1ME, 1-Methoxy-2-propanol] |
| MAK (OEL TWA) | 360 mg/m³ |
| | 100 ppm |
| KZGW (OEL STEL) | 720 mg/m³ |
| | 200 ppm |
| Notation | $SS_C$, B / $SS_C$, B |
| Remark | B $SS_C$ - ZNS, Auge[KT HU] |
| Regulatory reference | www.suva.ch, 01.01.2024 |
| **Switzerland - BAT** | |
| Local name | 1-Méthoxypropan-2-ol / 1-Methoxypropan-2-ol |
| BAT | 20 mg/l (221.9 µmol/l; Paramètre biologique: 1-Méthoxypropanol-2; Substrat d'examen: Urine; Moment du prélèvement: Fin de l'exposition, de la période de travail.) / (221.9 µmol/l; Biologischer Parameter: 1-Methoxypropanol-2; Untersuchungsmaterial: Urin; Probennahmezeitpunkt: Expositionsende, bzw. Schichtende.) |
| Regulatory reference | Ordonnance 832.30 (OPA), article 50 al. 3, www.suva.ch/valeurs-limites / Verordnung 832.30 (VUV), Art. 50 Abs. 3, www.suva.ch/grenzwerte |

| Methanol (67-56-1) | |
|---|---|
| **Switzerland - Occupational Exposure Limits** | |
| Local name | Méthanol / Methanol [Methylalkohol] |
| MAK (OEL TWA) | 260 mg/m³ |
| | 200 ppm |
| KZGW (OEL STEL) | 520 mg/m³ |
| | 400 ppm |
| Notation | R, $SS_C$, B / H, $SS_C$, B |
| Remark | INRS, NIOSH |
| OEL chemical category | Skin notation |
| Regulatory reference | www.suva.ch, 01.01.2024 |
| **Switzerland - BAT** | |
| Local name | Méthanol / Methanol |
| BAT | 30 mg/l (936 µmol/l; Paramètre biologique: Méthanol; Substrat d'examen: Urine; Moment du prélèvement: Fin de l'exposition, de la période de travail. Exposition de longue durée: après plusieurs périodes de travail.) / (936 µmol/l; Biologischer Parameter: Methanol; Untersuchungsmaterial: Urin; Probennahmezeitpunkt: Expositionsende, bzw. Schichtende. Bei Langzeitexposition: nach mehreren vorangegangenen Schichten.) |
| Regulatory reference | Ordonnance 832.30 (OPA), article 50 al. 3, www.suva.ch/valeurs-limites / Verordnung 832.30 (VUV), Art. 50 Abs. 3, www.suva.ch/grenzwerte |

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

**Appropriate engineering controls:**
Ensure good ventilation of the work station. Pay attention to explosion protection guidelines. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

#### 8.2.2. Personal protection equipment

#### 8.2.2.1. Eye and face protection

**Eye protection:**
Protective goggles (EN 166)

#### 8.2.2.2. Skin protection

**Skin and body protection:**
Long sleeved protective clothing

**Hand protection:**
Chemically resistant protective gloves. This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions. Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves

| Hand protection | | | | | |
|---|---|---|---|---|---|
| **Type** | **Material** | **Permeation** | **Thickness (mm)** | **Penetration** | **Standard** |
| protective gloves | Neoprene | 6 (> 480 minutes) | 0,75 | | |
| protective gloves | Polyvinylchloride (PVC) | 6 (> 480 minutes) | 1,3 | | |

#### 8.2.2.3. Respiratory protection

**Respiratory protection:**
In case of insufficient ventilation, wear suitable respiratory equipment

| Respiratory protection | | | |
|---|---|---|---|
| **Device** | **Filter type** | **Condition** | **Standard** |
| Breathing apparatus with filter | | Short term exposure | |
| Self contained breathing apparatus | | Long term exposure | |

#### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

**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 | : | Colourless. |
| Odour | : | characteristic. |
| Odour threshold | : | Not available |
| Melting point | : | < -20 °C |
| Freezing point | : | Not available |
| Boiling point | : | > 57 °C |
| Flammability | : | Not applicable |
| Explosive properties | : | Product is not explosive. Flammable or explosive vapour/air mixtures may be formed. |
| Lower explosive limit (LEL) | : | 1 vol % |
| Upper explosive limit (UEL) | : | 11.5 vol % |
| Flash point | : | -9 °C |
| Auto-ignition temperature | : | Not available |
| Decomposition temperature | : | Not available |
| pH | : | Not available |
| Viscosity, kinematic | : | Not available |
| Solubility | : | Water: immiscible |
| Partition coefficient n-octanol/water (Log Kow) | : | Not available |
| Vapour pressure | : | 105 hPa (20°C) |
| Vapour pressure at 50°C | : | Not available |
| Density | : | 0.86 g/cm³ (20°C) |
| Relative density | : | Not available |
| Relative vapour density at 20°C | : | Not available |
| Particle characteristics | : | Not applicable |

### 9.2. Other information

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

No additional information available

#### 9.2.2. Other safety characteristics

| | | |
|---|---|---|
| Ignition temperature | : | 270°C |
| Solvent content | : | 100% |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

No decomposition if stored and applied as directed.

### 10.3. Possibility of hazardous reactions

In use, may form flammable/explosive vapour-air mixture.

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

Oxidizing agent. Acids. Strong bases.

### 10.6. Hazardous decomposition products

Toxic gases.

## SECTION 11: Toxicological information

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

| | | |
|---|---|---|
| Acute toxicity (oral) | : | Not classified (Based on available data, the classification criteria are not met) |
| Acute toxicity (dermal) | : | Not classified (Based on available data, the classification criteria are not met) |
| Acute toxicity (inhalation) | : | Not classified (Based on available data, the classification criteria are not met) |

| propan-2-ol; isopropyl alcohol; isopropanol (67-63-0) | |
|---|---|
| LD50 dermal | 12870 mg/kg |

| 1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2) | |
|---|---|
| LD50 oral | 5900 mg/kg |
| LD50 dermal | 13000 mg/kg |

| Methanol (67-56-1) | |
|---|---|
| LD50 oral rat | 1187 – 2769 mg/kg bodyweight rat |

| | | |
|---|---|---|
| Skin corrosion/irritation | : | Causes skin irritation. |
| Serious eye damage/irritation | : | Causes serious eye damage. |
| Respiratory or skin sensitisation | : | Not classified (Based on available data, the classification criteria are not met) |
| Germ cell mutagenicity | : | Not classified (Based on available data, the classification criteria are not met) |
| Carcinogenicity | : | Not classified (Based on available data, the classification criteria are not met) |
| Reproductive toxicity | : | Suspected of damaging the unborn child. |
| STOT-single exposure | : | May cause respiratory irritation. May cause drowsiness or dizziness. |
| STOT-repeated exposure | : | May cause damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | : | May be fatal if swallowed and enters airways. |

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short–term (acute) : Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long–term (chronic) : Not classified (Based on available data, the classification criteria are not met)

| Methanol (67-56-1) | |
|---|---|
| LC50 fish 1 | 15400 mg/l Lepomis macrochirus (Bluegill) |
| EC50 96h - Algae [1] | ≈ 22000 mg/l Raphidocelis subcapitata |
| NOEC (chronic) | 208 mg/l Daphnia magna (Water flea), 21 d |
| NOEC chronic fish | 446.7 mg/l Pimephales promelas, 28 d |

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

Additional information : Do not flush into surface water or sewer system

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Do not discharge into drains.
Product/Packaging disposal recommendations : Must not be disposed together with household garbage. Empty containers should be taken for local recycling, recovery or waste disposal. Packaging that cannot be cleaned should be disposed of like the product.
Additional information : The vapour/air mixture is explosive, even in empty, uncleaned receptacles.

**Switzerland**

Waste code (VeVA) : 16 05 08 - [S] Discarded organic chemicals consisting of or containing dangerous substances

## SECTION 14: Transport information

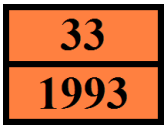
In accordance with ADR / IMDG / IATA / ADN / RID

| ADR | IMDG | IATA | ADN | RID |
|---|---|---|---|---|
| **14.1. UN number or ID number** | | | | |
| UN 1993 | UN 1993 | UN 1993 | UN 1993 | UN 1993 |
| **14.2. UN proper shipping name** | | | | |
| FLAMMABLE LIQUID, N.O.S. (Benzene, methyl- ; Ethyl acetate) | FLAMMABLE LIQUID, N.O.S. (Benzene, methyl- ; Ethyl acetate) | Flammable liquid, n.o.s. (Benzene, methyl- ; Ethyl acetate) | FLAMMABLE LIQUID, N.O.S. (Benzene, methyl- ; Ethyl acetate) | FLAMMABLE LIQUID, N.O.S. (Benzene, methyl- ; Ethyl acetate) |
| **Transport document description** | | | | |
| UN 1993 FLAMMABLE LIQUID, N.O.S. (Benzene, methyl- ; Ethyl acetate), 3, II, (D/E) | UN 1993 FLAMMABLE LIQUID, N.O.S. (Benzene, methyl- ; Ethyl acetate), 3, II | UN 1993 Flammable liquid, n.o.s. (Benzene, methyl- ; Ethyl acetate), 3, II | UN 1993 FLAMMABLE LIQUID, N.O.S. (Benzene, methyl- ; Ethyl acetate), 3, II | UN 1993 FLAMMABLE LIQUID, N.O.S. (Benzene, methyl- ; Ethyl acetate), 3, II |
| **14.3. Transport hazard class(es)** | | | | |
| 3 | 3 | 3 | 3 | 3 |
|  |  |  |  |  |
| **14.4. Packing group** | | | | |
| II | II | II | II | II |
| **14.5. Environmental hazards** | | | | |
| Dangerous for the environment: No | Dangerous for the environment: No<br>Marine pollutant: No | Dangerous for the environment: No | Dangerous for the environment: No | Dangerous for the environment: No |
| No supplementary information available | | | | |

## 14.6. Special precautions for user

### Overland transport

Classification code (ADR) : F1
Special provisions (ADR) : 274, 601, 640D
Limited quantities (ADR) : 1l
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P001, IBC02, R001
Mixed packing provisions (ADR) : MP19
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 33
Orange plates :




Tunnel restriction code (ADR) : D/E

### Transport by sea

Special provisions (IMDG) : 274
Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
Tank instructions (IMDG) : T7
Tank special provisions (IMDG) : TP1, TP28, TP8
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-E

Stowage category (IMDG) : B

**Air transport**

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y341
PCA limited quantity max net quantity (IATA) : 1L
PCA packing instructions (IATA) : 353
PCA max net quantity (IATA) : 5L
CAO packing instructions (IATA) : 364
CAO max net quantity (IATA) : 60L
Special provisions (IATA) : A3
ERG code (IATA) : 3H

**Inland waterway transport**

Classification code (ADN) : F1
Special provisions (ADN) : 274, 601, 640D
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E2
Equipment required (ADN) : PP, EX, A
Ventilation (ADN) : VE01
Number of blue cones/lights (ADN) : 1

**Rail transport**

Classification code (RID) : F1
Special provisions (RID) : 274, 601, 640D
Limited quantities (RID) : 1L
Excepted quantities (RID) : E2
Packing instructions (RID) : P001, IBC02, R001
Transport category (RID) : 2
Hazard identification number (RID) : 33

### 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

#### 15.1.1. EU-Regulations

**REACH Annex XVII (Restriction List)**

| EU restriction list (REACH Annex XVII) | | |
|---|---|---|
| **Reference code** | **Applicable on** | **Entry title or description** |
| 28. | Nitroverdünner | Substances which are classified as carcinogen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 1 or Appendix 2, respectively. |

**REACH Annex XIV (Authorisation List)**

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

**REACH Candidate List (SVHC)**

Contains no substance(s) listed on the REACH Candidate List

**PIC Regulation (Prior Informed Consent)**

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

**POP Regulation (Persistent Organic Pollutants)**

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

**Ozone Regulation (1005/2009)**

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

### Drug Precursors Regulation (273/2004)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

| Name | CN designation | CAS-No. | CN code | Category, Subcategory | Threshold | Annex |
|---|---|---|---|---|---|---|
| Toluene | | 108-88-3 | 2902 30 00 | Category 3 | | Annex I |
| Methylethylketone | Butanone | 78-93-3 | 2914 12 00 | Category 3 | | Annex I |

### Seveso Directive (Disaster Risk Reduction)

| Seveso III Part I (Categories of dangerous substances) | Qualifying quantity (tonnes) | |
|---|---|---|
| | Lower-tier | Upper-tier |
| P5c FLAMMABLE LIQUIDS<br>Flammable liquids, Categories 2 or 3 not covered by P5a and P5b | 5000 | 50000 |

### 15.1.2. National regulations

### Switzerland

Swiss National Regulations : Article 13 Order on the protection of maternity (RS 822.111.52):
Pregnant women and breastfeeding mothers cannot come into contact with this product (this substance/this preparation) when working except where it has been established, on the basis of a risk analysis performed in accordance with Art. 63 OLT 1 (RS 822.111), that there is no concrete threat to the health of the mother or baby or that said threat can be excluded thanks to the suitable protection measures taken.
Article 4, subparagraph 4 Order on the protection of young workers (OLT 5, RS 822.115) and Article 1, letter f Order of the DEFR on dangerous works for young workers (822.115.2): Young workers undergoing initial professional training cannot work with this product (this substance/this preparation) except where envisaged in the order of professional training to achieve the training purposes and if the training plan conditions and applicable age limits are respected. Young workers who do not undergo initial professional training cannot work with this product (this substance/this preparation). Workers of either sex aged under 18 years old are considered as young.

Water Protection Ordinance (GSchV, SR 814.201) : Class B

Clean Air Ordinance (LRV, SR 814.318.142.1) : Annex 1, number 7, Class 2
Emission concentration must not exceed the following value: 100 mg/m³

Accident Ordinance (StFV, SR 814.012) : Annex 1, number 4
Threshold quantity: 20000 kg

VOC Ordinance (VOCV, SR 814.018) : 100 %

## 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

| Abbreviations and acronyms: | |
|---|---|
| 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 |
| ATE | Acute Toxicity Estimate |
| BLV | Biological limit value |

| Abbreviations and acronyms: | |
|---|---|
| CAS-No. | Chemical Abstract Service number |
| CLP | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 |
| DMEL | Derived Minimal Effect level |
| DNEL | Derived-No Effect Level |
| EC50 | Median effective concentration |
| EC-No. | European Community number |
| EN | European Standard |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| LOAEL | Lowest Observed Adverse Effect Level |
| NOAEC | No-Observed Adverse Effect Concentration |
| NOAEL | No-Observed Adverse Effect Level |
| NOEC | No-Observed Effect Concentration |
| OEL | Occupational Exposure Limit |
| PBT | Persistent Bioaccumulative Toxic |
| PNEC | Predicted No-Effect Concentration |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SDS | Safety Data Sheet |
| vPvB | Very Persistent and Very Bioaccumulative |
| WGK | Water Hazard Class |

| Full text of H- and EUH-statements: | |
|---|---|
| Acute Tox. 3 (Dermal) | Acute toxicity (dermal), Category 3 |
| Acute Tox. 3 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 3 |
| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3 |
| Acute Tox. 4 (Dermal) | Acute toxicity (dermal), Category 4 |
| Acute Tox. 4 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 4 |
| Aquatic Chronic 3 | Hazardous to the aquatic environment – Chronic Hazard, Category 3 |
| Asp. Tox. 1 | Aspiration hazard, Category 1 |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Flam. Liq. 3 | Flammable liquids, Category 3 |

| Full text of H- and EUH-statements: | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H301 | Toxic if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H311 | Toxic in contact with skin. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H361d | Suspected of damaging the unborn child. |
| H370 | Causes damage to organs. |
| H371 | May cause damage to organs. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H412 | Harmful to aquatic life with long lasting effects. |
| Repr. 2 | Reproductive toxicity, Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| STOT RE 2 | Specific target organ toxicity – Repeated exposure, Category 2 |
| STOT SE 1 | Specific target organ toxicity – single exposure, Category 1 |
| STOT SE 2 | Specific target organ toxicity – Single exposure, Category 2 |
| STOT SE 3 | Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation |

| Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]: | | |
|---|---|---|
| Flam. Liq. 2 | H225 | On basis of test data |
| Skin Irrit. 2 | H315 | Calculation method |
| Eye Dam. 1 | H318 | Calculation method |
| Repr. 2 | H361d | Calculation method |
| STOT SE 3 | H335 | Calculation method |
| STOT SE 3 | H336 | Calculation method |
| STOT RE 2 | H373 | Calculation method |
| Asp. Tox. 1 | H304 | Expert judgement |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should therefore not be construed as guaranteeing any specific property of the product.