# PDC® F830 Muraculon Clear

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Revision date: 02/07/2024 Supersedes version of: 22/02/2022 Version: 3.0

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

### 1.1. Product identifier

| | | |
|---|---|---|
| Product form | : | Mixture |
| Product name | : | PDC® F830 Muraculon Clear |
| Product code | : | F83010509 |
| Product group | : | Trade product |
| UFI | : | |

### 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 : Coating

#### 1.2.2. Uses advised against

No additional information available

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

**Manufacturer**
Plasti Dip International, Inc.
3920 Pheasant Ridge Drive
Blaine, MN 55449
Phone - (763) 785-2156

**Distributor**
Global Express
7 Indian Path
Millstone, NJ 08535
(732) 977-0605

**EU Importer of Record**
Plasti Dip UK Ltd.
Unit 1 Harvesting Lane
PETERSFIELD
GU32 1QR
United Kingdom

### 1.4. Emergency telephone number

**Manufacturer Emergency number**
CHEMTREC: 1-800-424-9300 (US);
+1 703-741-5970 (International)

**Distributor Emergency number**
CHEMTREC: 1-800-424-9300 (US);
+1 703-741-5970 (International)

**Importer Emergency number**
CHEMTREC: 1-800-424-9300 (US);
+1 703-741-5970 (International)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008

| | |
|---|---|
| Flammable liquids Category 2 | H225 |
| Skin corrosion/irritation Category 2 | H315 |
| Serious eye damage/eye irritation, Category 2 | H319 |
| Carcinogenicity Category 2 | H351 |
| Reproductive toxicity Category 2 | H361 |
| 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 statements : see section 16

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

No additional information available

### 2.2. Label elements

#### Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS02 GHS07 GHS08

Signal word (CLP) : Danger

| | | |
|---|---|---|
| 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>H319 - Causes serious eye irritation.<br>H336 - May cause drowsiness or dizziness<br>H351 - Suspected of causing cancer.<br>H361 - Suspected of damaging fertility or 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>P271 - Use only outdoors or in a well-ventilated area.<br>P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.<br>P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.<br>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. |

### 2.3. Other hazards

The mixture contains Methyl ethyl ketone (CAS#78-93-3), which is 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] |
|---|---|---|---|
| Acetone | CAS-No.: 67-64-1<br>EC-No.: 200-662-2<br>EC Index-No.: 606-001-00-8 | 15 – 40 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336 |
| Toluene | CAS-No.: 108-88-3<br>EC-No.: 203-625-9<br>EC Index-No.: 601-021-00-3 | 10 – 30 | Flam. Liq. 2, H225<br>Acute Tox. 2 (Inhalation:dust,mist), H330<br>Skin Irrit. 2, H315<br>Repr. 2, H361d<br>STOT SE 3, H336<br>STOT RE 2, H373<br>Asp. Tox. 1, H304 |
| Xylene | CAS-No.: 1330-20-7<br>EC-No.: 215-535-7<br>EC Index-No.: 601-022-00-9 | 7 – 13 | Flam. Liq. 3, H226<br>Acute Tox. 4 (Inhalation), H332<br>Acute Tox. 4 (Dermal), H312<br>Skin Irrit. 2, H315 |
| Ethylbenzene | CAS-No.: 100-41-4<br>EC-No.: 202-849-4<br>EC Index-No.: 601-023-00-4 | 1 – 5 | Flam. Liq. 2, H225<br>Acute Tox. 4 (Inhalation), H332<br>STOT RE 2, H373<br>Asp. Tox. 1, H304<br>Aquatic Chronic 2, H411 |
| Methyl ethyl ketone | CAS-No.: 78-93-3<br>EC-No.: 201-159-0<br>EC Index-No.: 606-002-00-3 | 0.1 – 1 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336 |

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|---|---|
| Cumene | CAS-No.: 98-82-8<br>EC-No.: 202-704-5<br>EC Index-No.: 601-024-00-X | 0.1 – 1 | Flam. Liq. 3, H226<br>Carc. 1B, H350<br>STOT SE 3, H335<br>Asp. Tox. 1, H304<br>Aquatic Chronic 2, H411 |

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 : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If breathing is difficult, supply oxygen. If breathing has stopped, give artificial respiration.

First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention immediately.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing if pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.

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

Symptoms/effects : May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. Suspected of causing cancer. Suspected of damaging fertility or the unborn child.

Symptoms/effects after inhalation : May cause drowsiness or dizziness.

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

Symptoms/effects after ingestion : May be fatal if swallowed and enters airways.

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

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Carbon dioxide. Dry chemical.

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

Fire hazard : Highly flammable liquid and vapour.

Explosion hazard : Heating may cause an explosion.

Reactivity in case of fire : None known.

Hazardous decomposition products in case of fire : Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon oxides and other organic compounds will be evolved when this material undergoes thermal degradation.

### 5.3. Advice for firefighters

| | | |
|---|---|---|
| Precautionary measures fire | : | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| Firefighting instructions | : | Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment. Prevent human exposure to fire, fumes, smoke and products of combustion. |
| Protection during firefighting | : | Do not enter fire area without proper protective equipment, including respiratory protection. |
| Other information | : | This material is flammable and may be ignited by heat, sparks, or static electricity. |

## SECTION 6: Accidental release measures

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

| | | |
|---|---|---|
| General measures | : | Evacuate area. Ventilate area. Keep upwind. Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection. |

#### 6.1.1. For non-emergency personnel

| | | |
|---|---|---|
| Protective equipment | : | Wear Protective equipment as described in Section 8. |
| Emergency procedures | : | Evacuate unnecessary personnel. |

#### 6.1.2. For emergency responders

| | | |
|---|---|---|
| Protective equipment | : | Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency. |

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

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

| | | |
|---|---|---|
| For containment | : | Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Prevent entry to sewers and public waters. |
| Methods for cleaning up | : | Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. This material and its container must be disposed of in a safe way, and as per local legislation. |

### 6.4. Reference to other sections

See Sections 8 and 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

| | | |
|---|---|---|
| Precautions for safe handling | : | Do not handle until all safety precautions have been read and understood. Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Keep away from sources of ignition - No smoking. |

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

| | | |
|---|---|---|
| Storage conditions | : | Keep the container tightly closed. Store in a dry, cool and well-ventilated place. Keep away from ignition sources. |

### 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

| Acetone (67-64-1) | |
|---|---|
| **EU - Indicative Occupational Exposure Limit (IOEL)** | |
| IOEL TWA | 1210 mg/m³ |
| IOEL TWA [ppm] | 500 ppm |
| **Austria - Occupational Exposure Limits** | |
| MAK (OEL TWA) | 1200 mg/m³ |
| MAK (OEL TWA) [ppm] | 500 ppm |
| MAK (OEL STEL) | 4800 mg/m³ |
| MAK (OEL STEL) [ppm] | 2000 ppm |
| **Belgium - Occupational Exposure Limits** | |
| OEL TWA | 594 mg/m³ |
| OEL TWA | 246 ppm |
| OEL STEL | 1187 mg/m³ |
| OEL STEL | 492 ppm |
| **Bulgaria - Occupational Exposure Limits** | |
| OEL TWA | 600 mg/m³ |
| OEL STEL | 1400 mg/m³ |
| **Bulgaria - Biological limit values** | |
| BLV | 80 mg/l Parameter: Acetone - Medium: urine - Sampling time: at the end of exposure or end of work shift |
| **Croatia - Occupational Exposure Limits** | |
| GVI (OEL TWA) [1] | 1210 mg/m³ |
| GVI (OEL TWA) [2] | 500 ppm |
| **Croatia - Biological limit values** | |
| BLV | 20 mg/l Parameter: Acetone - Medium: blood - Sampling time: at the end of the work shift (interference of endogenous Acetone (<1.3 mg/L))<br>20 mg/g Kreatinin Parameter: Acetone - Medium: urine - Sampling time: at the end of the work shift (calculated on the average Creatinine value of 1.2 g/L urine) |
| **Cyprus - Occupational Exposure Limits** | |
| OEL TWA | 1210 mg/m³ |
| OEL TWA | 500 ppm |
| Chemical category | Skin-potential for cutaneous absorption |
| **Czech Republic - Occupational Exposure Limits** | |
| PEL (OEL TWA) | 800 mg/m³ |
| **Denmark - Occupational Exposure Limits** | |
| OEL TWA [1] | 600 mg/m³ |
| OEL TWA [2] | 250 ppm |
| OEL STEL | 1200 mg/m³ |

| Acetone (67-64-1) | |
|---|---|
| OEL STEL | 500 ppm |
| **Estonia - Occupational Exposure Limits** | |
| OEL TWA | 1210 mg/m³ |
| OEL TWA | 500 ppm |
| **Finland - Occupational Exposure Limits** | |
| HTP (OEL TWA) [1] | 1200 mg/m³ |
| HTP (OEL TWA) [2] | 500 ppm |
| HTP (OEL STEL) | 1500 mg/m³ |
| HTP (OEL STEL) [ppm] | 630 ppm |
| **France - Occupational Exposure Limits** | |
| VME (OEL TWA) | 1210 mg/m³ (restrictive limit) |
| VME (OEL TWA) [ppm] | 500 ppm (restrictive limit) |
| VLE (OEL C/STEL) | 2420 mg/m³ (restrictive limit) |
| VLE (OEL C/STEL) [ppm] | 1000 ppm (restrictive limit) |
| **France - Biological limit values** | |
| BLV | Parameter: Acetone - Medium: urine - Sampling time: end of shift (per the Authority, the values for this substance must be decided and/or determined on a case by case basis. Guidance for the calculation of and interpretation of values is provided in the source) |
| **Germany - Occupational Exposure Limits (TRGS 900)** | |
| AGW (OEL TWA) [1] | 1200 mg/m³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed) |
| AGW (OEL TWA) [2] | 500 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed) |
| **Germany - Biological limit values (TRGS 903)** | |
| BLV | 50 mg/l Parameter: Acetone - Medium: urine - Sampling time: end of shift |
| **Gibraltar - Occupational Exposure Limits** | |
| OEL TWA | 1210 mg/m³ |
| OEL TWA | 500 ppm |
| **Greece - Occupational Exposure Limits** | |
| OEL TWA | 1780 mg/m³ |
| OEL STEL | 3560 mg/m³ |
| **Hungary - Occupational Exposure Limits** | |
| AK (OEL TWA) | 1210 mg/m³ |
| **Ireland - Occupational Exposure Limits** | |
| OEL TWA [1] | 1210 mg/m³ |
| OEL TWA [2] | 500 ppm |
| OEL STEL | 3630 mg/m³ (calculated) |
| OEL STEL | 1500 ppm (calculated) |
| **Italy - Occupational Exposure Limits** | |
| OEL TWA | 1210 mg/m³ |

| Acetone (67-64-1) | |
|---|---|
| OEL TWA | 500 ppm |
| **Latvia - Occupational Exposure Limits** | |
| OEL TWA | 1210 mg/m³ |
| OEL TWA | 500 ppm |
| **Lithuania - Occupational Exposure Limits** | |
| IPRV (OEL TWA) | 1210 mg/m³ |
| IPRV (OEL TWA) [ppm] | 500 ppm |
| TPRV (OEL STEL) | 2420 mg/m³ |
| TPRV (OEL STEL) [ppm] | 1000 ppm |
| **Luxembourg - Occupational Exposure Limits** | |
| OEL TWA | 1210 mg/m³ |
| OEL TWA | 500 ppm |
| **Malta - Occupational Exposure Limits** | |
| OEL TWA | 1210 mg/m³ |
| OEL TWA | 500 ppm |
| **Netherlands - Occupational Exposure Limits** | |
| TGG-8u (OEL TWA) | 1210 mg/m³ |
| TGG-8u (OEL TWA) [ppm] | 500 ppm |
| TGG-15min (OEL STEL) | 2420 mg/m³ |
| TGG-15min (OEL STEL) [ppm] | 1 ppm |
| **Poland - Occupational Exposure Limits** | |
| NDS (OEL TWA) | 600 mg/m³ |
| NDSCh (OEL STEL) | 1800 mg/m³ |
| **Portugal - Occupational Exposure Limits** | |
| OEL TWA | 1210 mg/m³ (indicative limit value) |
| OEL TWA | 500 ppm (indicative limit value) |
| OEL STEL | 750 ppm |
| Chemical category | A4 - Not Classifiable as a Human Carcinogen |
| **Romania - Occupational Exposure Limits** | |
| OEL TWA | 1210 mg/m³ |
| OEL TWA | 500 ppm |
| **Romania - Biological limit values** | |
| BLV | 50 mg/l Parameter: Acetone - Medium: urine - Sampling time: end of shift |
| **Slovakia - Occupational Exposure Limits** | |
| NPHV (OEL TWA) [1] | 1210 mg/m³ |
| NPHV (OEL TWA) [2] | 500 ppm |
| **Slovakia - Biological limit values** | |
| BLV | 80 mg/l Parameter: Acetone - Medium: urine - Sampling time: end of exposure or work shift |

| Acetone (67-64-1) | |
|---|---|
| **Slovenia - Occupational Exposure Limits** | |
| OEL TWA | 1210 mg/m³ |
| OEL TWA | 500 ppm |
| OEL STEL | 2420 mg/m³ |
| OEL STEL | 1000 ppm |
| **Spain - Occupational Exposure Limits** | |
| VLA-ED (OEL TWA) [1] | 1210 mg/m³ (indicative limit value) |
| VLA-ED (OEL TWA) [2] | 500 ppm (indicative limit value) |
| **Spain - Biological limit values** | |
| BLV | 50 mg/l Parameter: Acetone - Medium: urine - Sampling time: end of shift |
| **Sweden - Occupational Exposure Limits** | |
| NGV (OEL TWA) | 600 mg/m³ |
| NGV (OEL TWA) [ppm] | 250 ppm |
| KGV (OEL STEL) | 1200 mg/m³ |
| KGV (OEL STEL) [ppm] | 500 ppm |
| **United Kingdom - Occupational Exposure Limits** | |
| WEL TWA (OEL TWA) [1] | 1210 mg/m³ |
| WEL TWA (OEL TWA) [2] | 500 ppm |
| WEL STEL (OEL STEL) | 3620 mg/m³ |
| WEL STEL (OEL STEL) [ppm] | 1500 ppm |
| **Norway - Occupational Exposure Limits** | |
| Grenseverdi (OEL TWA) [1] | 295 mg/m³ |
| Grenseverdi (OEL TWA) [2] | 125 ppm |
| Korttidsverdi (OEL STEL) | 368.75 mg/m³ (value calculated) |
| Korttidsverdi (OEL STEL) [ppm] | 156.25 ppm (value calculated) |
| **Switzerland - Occupational Exposure Limits** | |
| MAK (OEL TWA) [1] | 1200 mg/m³ |
| MAK (OEL TWA) [2] | 500 ppm |
| KZGW (OEL STEL) | 2400 mg/m³ |
| KZGW (OEL STEL) [ppm] | 1000 ppm |
| **Switzerland - Biological limit values** | |
| BAT (BLV) | 50 mg/l Parameter: Acetone - Medium: urine - Sampling time: end of shift<br>Parameter: Acetone - Medium: urine - Sampling time: end of shift |
| **Turkey - Occupational Exposure Limits** | |
| OEL TWA | 1210 mg/m³ |
| OEL TWA | 500 ppm |
| **USA - ACGIH - Occupational Exposure Limits** | |
| Local name | Acetone |
| ACGIH OEL TWA [ppm] | 250 ppm |

| Acetone (67-64-1) | |
|---|---|
| ACGIH OEL STEL [ppm] | 500 ppm |
| Remark (ACGIH) | TLV® Basis: URT & eye irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI |
| ACGIH chemical category | Not Classifiable as a Human Carcinogen |
| Regulatory reference | ACGIH 2023 |
| **USA - ACGIH - Biological Exposure Indices** | |
| Local name | ACETONE |
| BEI (BLV) | 25 mg/l Parameter: Acetone - Medium: urine - Sampling time: end of shift (nonspecific) |
| Regulatory reference | ACGIH 2023 |

| Toluene (108-88-3) | |
|---|---|
| **EU - Indicative Occupational Exposure Limit (IOEL)** | |
| IOEL TWA | 192 mg/m³ |
| IOEL TWA [ppm] | 50 ppm |
| IOEL STEL | 384 mg/m³ |
| IOEL STEL [ppm] | 100 ppm |
| Notes | Possibility of significant uptake through the skin |
| **Austria - Occupational Exposure Limits** | |
| MAK (OEL TWA) | 190 mg/m³ |
| MAK (OEL TWA) [ppm] | 50 ppm |
| MAK (OEL STEL) | 380 mg/m³ |
| MAK (OEL STEL) [ppm] | 100 ppm |
| Chemical category | skin notation |
| **Belgium - Occupational Exposure Limits** | |
| OEL TWA | 77 mg/m³ |
| OEL TWA | 20 ppm |
| OEL STEL | 384 mg/m³ |
| OEL STEL | 100 ppm |
| Chemical category | Skin, skin notation |
| **Bulgaria - Occupational Exposure Limits** | |
| OEL TWA | 192 mg/m³ |
| OEL TWA | 50 ppm |
| OEL STEL | 384 mg/m³ |
| OEL STEL | 100 ppm |
| **Bulgaria - Biological limit values** | |
| BLV | 1.6 mmol/mmol Creatinine Parameter: Hippuric acid - Medium: urine - Sampling time: at the end of exposure or end of work shift |
| **Croatia - Occupational Exposure Limits** | |
| GVI (OEL TWA) [1] | 192 mg/m³ |
| GVI (OEL TWA) [2] | 50 ppm |

| Toluene (108-88-3) | |
|---|---|
| KGVI (OEL STEL) | 384 mg/m³ |
| KGVI (OEL STEL) [ppm] | 100 ppm |
| Chemical category | skin notation |
| **Croatia - Biological limit values** | |
| BLV | 1 mg/l Parameter: Toluene - Medium: blood - Sampling time: at the end of the work shift<br>20 ppm Medium: final exhaled air - Sampling time: during exposure<br>2.5 g/g Kreatinin Parameter: Hippuric acid - Medium: urine - Sampling time: at the end of the work shift (calculated on the average Creatinine value of 1.2 g/L urine)<br>1 mg/g Kreatinin Parameter: o-Cresol - Medium: urine - Sampling time: at the end of the work shift (calculated on the average Creatinine value of 1.2 g/L urine) |
| **Cyprus - Occupational Exposure Limits** | |
| OEL TWA | 192 mg/m³ |
| OEL TWA | 50 ppm |
| OEL STEL | 384 mg/m³ |
| OEL STEL | 100 ppm |
| Chemical category | Skin-potential for cutaneous absorption |
| **Czech Republic - Occupational Exposure Limits** | |
| PEL (OEL TWA) | 200 mg/m³ |
| Chemical category | Potential for cutaneous absorption |
| **Czech Republic - Biological limit values** | |
| BLV | 1.6 µmol/mmol Creatinine Parameter: o-Cresol - Medium: urine - Sampling time: end of shift (after hydrolysis)<br>1000 µmol/mmol Creatinine Parameter: Hippuric acid - Medium: urine - Sampling time: end of shift (exposure testing using the o-Cresol parameter to precisely measure Toluene exposure is needed if the value of Hippuric acid is between 1600 and 2500 mg/g of Creatinine, no additional testing is needed if the Hippuric acid value is >2500 mg/g of Creatinine as work exposure to Toluene will have highly exceeded the PEL value.)<br>1.5 mg/g Kreatinin Parameter: o-Cresol - Medium: urine - Sampling time: end of shift (after hydrolysis)<br>1600 mg/g Kreatinin Parameter: Hippuric acid - Medium: urine - Sampling time: end of shift (exposure testing using the o-Cresol parameter to precisely measure Toluene exposure is needed if the value of Hippuric acid is between 1600 and 2500 mg/g of Creatinine, no additional testing is needed if the Hippuric acid value is >2500 mg/g of Creatinine as work exposure to Toluene will have highly exceeded the PEL value.) |
| **Denmark - Occupational Exposure Limits** | |
| OEL TWA [1] | 94 mg/m³ |
| OEL TWA [2] | 25 ppm |
| OEL STEL | 188 mg/m³ |
| OEL STEL | 50 ppm |
| Chemical category | Potential for cutaneous absorption |
| **Estonia - Occupational Exposure Limits** | |
| OEL TWA | 192 mg/m³ |
| OEL TWA | 50 ppm |
| OEL STEL | 384 mg/m³ |
| OEL STEL | 100 ppm |

| Toluene (108-88-3) | |
|---|---|
| Chemical category | skin notation |
| **Finland - Occupational Exposure Limits** | |
| HTP (OEL TWA) [1] | 81 mg/m³ |
| HTP (OEL TWA) [2] | 25 ppm |
| HTP (OEL STEL) | 380 mg/m³ |
| HTP (OEL STEL) [ppm] | 100 ppm |
| Chemical category | Potential for cutaneous absorption |
| **Finland - Biological limit values** | |
| BLV | 500 nmol/L Parameter: Toluene - Medium: blood - Sampling time: in the morning after a working day |
| **France - Occupational Exposure Limits** | |
| VME (OEL TWA) | 76.8 mg/m³ TWA [VME] (restrictive limit) |
| VME (OEL TWA) [ppm] | 20 ppm TWA [VME] (restrictive limit) |
| VLE (OEL C/STEL) | 384 mg/m³ STEL [VLCT] (restrictive limit) |
| VLE (OEL C/STEL) [ppm] | 100 ppm STEL [VLCT] (restrictive limit) |
| Chemical category | Risk of cutaneous absorption |
| **France - Biological limit values** | |
| BLV | 20 µg/l Parameter: Toluene - Medium: blood - Sampling time: end of workweek (Semi-quantitative (ambiguous interpretation))<br>Parameter: Hippuric acid - Medium: urine - Sampling time: end of shift (per the Authority, the values for this substance must be decided and/or determined on a case by case basis. Guidance for the calculation of and interpretation of values is provided in the source) |
| **Germany - Occupational Exposure Limits (TRGS 900)** | |
| AGW (OEL TWA) [1] | 190 mg/m³ |
| AGW (OEL TWA) [2] | 50 ppm |
| AGW (OEL C) | 760 mg/m³ |
| AGW (OEL C) [ppm] | 200 ppm |
| Chemical category | skin notation |
| **Germany - Biological limit values (TRGS 903)** | |
| BLV | 600 µg/l Parameter: Toluene - Medium: whole blood - Sampling time: immediately after exposure<br>75 µg/l Parameter: Toluene - Medium: urine - Sampling time: end of shift<br>1.5 mg/l Parameter: o-Cresol (after hydrolysis) - Medium: urine - Sampling time: for long-term exposures: at the end of the shift after several shifts<br>1.5 mg/l Parameter: o-Cresol (after hydrolysis) - Medium: urine - Sampling time: end of shift |
| **Gibraltar - Occupational Exposure Limits** | |
| OEL TWA | 192 mg/m³ |
| OEL TWA | 50 ppm |
| OEL STEL | 384 mg/m³ |
| OEL STEL | 100 ppm |
| Chemical category | skin notation |

| Toluene (108-88-3) | |
|---|---|
| **Greece - Occupational Exposure Limits** | |
| OEL TWA | 192 mg/m³ |
| OEL TWA | 50 ppm |
| OEL STEL | 384 mg/m³ |
| OEL STEL | 100 ppm |
| Chemical category | skin - potential for cutaneous absorption |
| **Hungary - Occupational Exposure Limits** | |
| AK (OEL TWA) | 190 |
| CK (OEL STEL) | 380 mg/m³ |
| Chemical category | Potential for cutaneous absorption |
| **Ireland - Occupational Exposure Limits** | |
| OEL TWA [1] | 192 mg/m³ |
| OEL TWA [2] | 50 ppm |
| OEL STEL | 384 mg/m³ |
| OEL STEL | 100 ppm |
| Chemical category | Potential for cutaneous absorption |
| **Italy - Occupational Exposure Limits** | |
| OEL TWA | 192 mg/m³ |
| OEL TWA | 50 ppm |
| Chemical category | skin - potential for cutaneous absorption |
| **Latvia - Occupational Exposure Limits** | |
| OEL TWA | 50 mg/m³ |
| OEL TWA | 14 ppm |
| OEL STEL | 150 mg/m³ |
| OEL STEL | 40 ppm |
| Chemical category | skin - potential for cutaneous exposure |
| **Latvia - Biological limit values** | |
| BEI (BLV) | 1.6 g/g Kreatinin Parameter: Hippuric acid - Medium: urine - Sampling time: end of shift<br>0.05 mg/l Parameter: Toluene - Medium: blood - Sampling time: end of shift |
| **Lithuania - Occupational Exposure Limits** | |
| IPRV (OEL TWA) | 192 mg/m³ |
| IPRV (OEL TWA) [ppm] | 50 ppm |
| TPRV (OEL STEL) | 384 mg/m³ |
| TPRV (OEL STEL) [ppm] | 100 ppm |
| Chemical category | Reproductive toxin, skin notation |
| **Luxembourg - Occupational Exposure Limits** | |
| OEL TWA | 192 mg/m³ |
| OEL TWA | 50 ppm |
| OEL STEL | 384 mg/m³ |

| Toluene (108-88-3) | |
|---|---|
| OEL STEL | 100 ppm |
| Chemical category | Possibility of significant uptake through the skin |
| **Malta - Occupational Exposure Limits** | |
| OEL TWA | 192 mg/m³ |
| OEL TWA | 50 ppm |
| OEL STEL | 384 mg/m³ |
| OEL STEL | 100 ppm |
| Chemical category | Possibility of significant uptake through the skin |
| **Netherlands - Occupational Exposure Limits** | |
| TGG-8u (OEL TWA) | 150 mg/m³ |
| TGG-8u (OEL TWA) [ppm] | 39 ppm |
| TGG-15min (OEL STEL) | 384 mg/m³ |
| TGG-15min (OEL STEL) [ppm] | 100 ppm |
| **Poland - Occupational Exposure Limits** | |
| NDS (OEL TWA) | 100 mg/m³ |
| NDSCh (OEL STEL) | 200 mg/m³ |
| **Portugal - Occupational Exposure Limits** | |
| OEL TWA | 192 mg/m³ (indicative limit value) |
| OEL TWA | 50 ppm (indicative limit value) |
| OEL STEL | 384 mg/m³ (indicative limit value) |
| OEL STEL | 100 ppm (indicative limit value) |
| Chemical category | A4 - Not Classifiable as a Human Carcinogen, skin - potential for cutaneous exposure indicative limit value |
| **Romania - Occupational Exposure Limits** | |
| OEL TWA | 192 mg/m³ |
| OEL TWA | 50 ppm |
| OEL STEL | 384 mg/m³ |
| OEL STEL | 100 ppm |
| Chemical category | skin notation |
| **Romania - Biological limit values** | |
| BLV | 2 g/l Parameter: Hippuric acid - Medium: urine - Sampling time: end of shift<br>3 mg/l Parameter: o-Cresol - Medium: urine - Sampling time: end of shift |
| **Slovakia - Occupational Exposure Limits** | |
| NPHV (OEL TWA) [1] | 192 mg/m³ |
| NPHV (OEL TWA) [2] | 50 ppm |
| NPHV (OEL C) | 384 mg/m³ |
| Chemical category | Potential for cutaneous absorption |

| Toluene (108-88-3) | |
|---|---|
| **Slovakia - Biological limit values** | |
| BLV | 600 µg/l Parameter: Toluene - Medium: blood - Sampling time: end of exposure or work shift<br>1.5 mg/l Parameter: o-Cresol - Medium: urine - Sampling time: after all work shifts (for long-term exposure)<br>1.5 mg/l Parameter: o-Cresol - Medium: urine - Sampling time: end of exposure or work shift<br>1600 mg/g Kreatinin Parameter: Hippuric acid - Sampling time: end of exposure or work shift |
| **Slovenia - Occupational Exposure Limits** | |
| OEL TWA | 192 mg/m³ |
| OEL TWA | 50 ppm |
| OEL STEL | 384 mg/m³ |
| OEL STEL | 100 ppm |
| Chemical category | Category 2, Potential for cutaneous absorption |
| **Spain - Occupational Exposure Limits** | |
| VLA-ED (OEL TWA) [1] | 191 mg/m³ |
| VLA-ED (OEL TWA) [2] | 50 ppm |
| VLA-EC (OEL STEL) | 384 mg/m³ |
| VLA-EC (OEL STEL) [ppm] | 100 ppm |
| Chemical category | skin - potential for cutaneous absorption |
| **Spain - Biological limit values** | |
| BLV | 0.6 mg/l Parameter: o-Cresol - Medium: urine - Sampling time: end of shift<br>0.05 mg/l Parameter: Toluene - Medium: blood - Sampling time: start of last shift of workweek<br>0.08 mg/l Parameter: Toluene - Medium: urine - Sampling time: end of shift |
| **Sweden - Occupational Exposure Limits** | |
| NGV (OEL TWA) | 192 mg/m³ |
| NGV (OEL TWA) [ppm] | 50 ppm |
| KGV (OEL STEL) | 384 mg/m³ |
| KGV (OEL STEL) [ppm] | 100 ppm |
| Chemical category | skin notation |
| **United Kingdom - Occupational Exposure Limits** | |
| WEL TWA (OEL TWA) [1] | 191 mg/m³ |
| WEL TWA (OEL TWA) [2] | 50 ppm |
| WEL STEL (OEL STEL) | 384 mg/m³ |
| WEL STEL (OEL STEL) [ppm] | 100 ppm |
| WEL chemical category | Potential for cutaneous absorption |
| **Norway - Occupational Exposure Limits** | |
| Grenseverdi (OEL TWA) [1] | 94 mg/m³ |
| Grenseverdi (OEL TWA) [2] | 25 ppm |
| Korttidsverdi (OEL STEL) | 141 mg/m³ (value calculated) |

| Toluene (108-88-3) | |
|---|---|
| Korttidsverdi (OEL STEL) [ppm] | 37.5 ppm (value calculated) |
| Chemical category | skin notation |
| **Switzerland - Occupational Exposure Limits** | |
| MAK (OEL TWA) [1] | 190 mg/m³ |
| MAK (OEL TWA) [2] | 50 ppm |
| KZGW (OEL STEL) | 760 mg/m³ |
| KZGW (OEL STEL) [ppm] | 200 ppm |
| Chemical category | skin notation, Category 2 reproductive toxin |
| **Switzerland - Biological limit values** | |
| BAT (BLV) | 600 µg/l Parameter: Toluene - Medium: whole blood - Sampling time: end of shift<br>6.48 µmol/l Parameter: Toluene - Medium: whole blood - Sampling time: end of shift<br>2 g/g Kreatinin Parameter: Hippuric acid - Medium: urine - Sampling time: end of shift, and after several shifts (for long-term exposures)<br>Parameter: Hippuric acid - Medium: urine - Sampling time: end of shift, and after several shifts (for long-term exposures)<br>0.5 mg/l Parameter: o-Cresol - Medium: urine - Sampling time: end of shift, and after several shifts (for long-term exposures)<br>4.62 µmol/l Parameter: o-Cresol - Medium: urine - Sampling time: end of shift, and after several shifts (for long-term exposures)<br>75 µg/l Parameter: Toluol - Medium: urine - Sampling time: end of shift |
| **Turkey - Occupational Exposure Limits** | |
| OEL TWA | 192 mg/m³ |
| OEL TWA | 50 ppm |
| OEL STEL | 384 mg/m³ |
| OEL STEL | 100 ppm |
| Chemical category | skin notation |
| **USA - ACGIH - Occupational Exposure Limits** | |
| Local name | Toluene |
| ACGIH OEL TWA [ppm] | 20 ppm |
| Remark (ACGIH) | TLV® Basis: CNS, visual & hearing impair; female repro system eff; pregnancy loss.<br>Notations: OTO; A4 (Not classifiable as a Human Carcinogen); BEI |
| ACGIH chemical category | Not Classifiable as a Human Carcinogen |
| Regulatory reference | ACGIH 2024 |
| **USA - ACGIH - Biological Exposure Indices** | |
| Local name | Toluene |
| BEI (BLV) | 0.02 mg/l Parameter: Toluene - Medium: blood - Sampling time: prior to last shift of workweek<br>0.03 mg/l Parameter: Toluene - Medium: urine - Sampling time: end of shift<br>0.3 mg/g Kreatinin Parameter: o-Cresol with hydrolysis - Medium: urine - Sampling time: end of shift (background) |
| Regulatory reference | ACGIH 2024 |

| Ethylbenzene (100-41-4) | |
|---|---|
| **EU - Indicative Occupational Exposure Limit (IOEL)** | |
| IOEL TWA | 442 mg/m³ |

| Ethylbenzene (100-41-4) | |
|---|---|
| IOEL TWA [ppm] | 100 ppm |
| IOEL STEL | 884 mg/m³ |
| IOEL STEL [ppm] | 200 ppm |
| Notes | Possibility of significant uptake through the skin |
| **Austria - Occupational Exposure Limits** | |
| MAK (OEL TWA) | 440 mg/m³ |
| MAK (OEL TWA) [ppm] | 100 ppm |
| MAK (OEL STEL) | 880 mg/m³ |
| MAK (OEL STEL) [ppm] | 200 ppm |
| Chemical category | skin notation |
| **Belgium - Occupational Exposure Limits** | |
| OEL TWA | 442 mg/m³ |
| OEL TWA | 100 ppm |
| OEL STEL | 551 mg/m³ |
| OEL STEL | 125 ppm |
| Chemical category | Skin, skin notation |
| **Bulgaria - Occupational Exposure Limits** | |
| OEL TWA | 435 mg/m³ |
| OEL STEL | 545 mg/m³ |
| **Bulgaria - Biological limit values** | |
| BLV | 2000 mg/g Kreatinin Parameter: Mandelic acid and Phenylglyoxylic acid - total - Medium: urine - Sampling time: at the end of exposure or end of work shift (possible significant absorption through the skin) |
| **Croatia - Occupational Exposure Limits** | |
| GVI (OEL TWA) [1] | 442 mg/m³ |
| GVI (OEL TWA) [2] | 100 ppm |
| KGVI (OEL STEL) | 884 mg/m³ |
| KGVI (OEL STEL) [ppm] | 200 ppm |
| Chemical category | skin notation |
| **Croatia - Biological limit values** | |
| BLV | 1.5 mg/l Parameter: Ethylbenzene - Medium: blood - Sampling time: during exposure<br>1.5 g/g Kreatinin Parameter: Mandelic acid - Medium: urine - Sampling time: at the end of the work shift and at the end of the working week (calculated on the average Creatinine value of 1.2 g/L urine) |
| **Cyprus - Occupational Exposure Limits** | |
| OEL TWA | 442 mg/m³ |
| OEL TWA | 100 ppm |
| OEL STEL | 884 mg/m³ |
| OEL STEL | 200 ppm |
| Chemical category | Skin-potential for cutaneous absorption |

| Ethylbenzene (100-41-4) | |
|---|---|
| **Czech Republic - Occupational Exposure Limits** | |
| PEL (OEL TWA) | 200 mg/m³ |
| Chemical category | Potential for cutaneous absorption |
| **Czech Republic - Biological limit values** | |
| BLV | 1100 µmol/mmol Creatinine Parameter: Mandelic acid - Medium: urine - Sampling time: end of shift<br>1500 mg/g Kreatinin Parameter: Mandelic acid - Medium: urine - Sampling time: end of shift |
| **Denmark - Occupational Exposure Limits** | |
| OEL TWA [1] | 217 mg/m³ |
| OEL TWA [2] | 50 ppm |
| OEL STEL | 434 mg/m³ |
| OEL STEL | 100 ppm |
| Chemical category | Potential for cutaneous absorption |
| **Estonia - Occupational Exposure Limits** | |
| OEL TWA | 442 mg/m³ |
| OEL TWA | 100 ppm |
| OEL STEL | 884 mg/m³ |
| OEL STEL | 200 ppm |
| Chemical category | skin notation, Sensitizer |
| **Finland - Occupational Exposure Limits** | |
| HTP (OEL TWA) [1] | 220 mg/m³ |
| HTP (OEL TWA) [2] | 50 ppm |
| HTP (OEL STEL) | 880 mg/m³ |
| HTP (OEL STEL) [ppm] | 200 ppm |
| Chemical category | Potential for cutaneous absorption |
| **Finland - Biological limit values** | |
| BLV | Parameter: Mandelic acid - Medium: urine - Sampling time: after the shift after a working week or exposure period |
| **France - Occupational Exposure Limits** | |
| VME (OEL TWA) | 88.4 mg/m³ TWA [VME] (restrictive limit) |
| VME (OEL TWA) [ppm] | 20 ppm TWA [VME] (restrictive limit) |
| VLE (OEL C/STEL) | 442 mg/m³ STEL [VLCT] (restrictive limit) |
| VLE (OEL C/STEL) [ppm] | 100 ppm STEL [VLCT] (restrictive limit) |
| Chemical category | Risk of cutaneous absorption |
| **France - Biological limit values** | |
| BLV | Parameter: Mandelic acid - Medium: urine - Sampling time: end of shift at end of workweek (per the Authority, the values for this substance must be decided and/or determined on a case by case basis. Guidance for the calculation of and interpretation of values is provided in the source) |

| Ethylbenzene (100-41-4) | |
|---|---|
| **Germany - Occupational Exposure Limits (TRGS 900)** | |
| AGW (OEL TWA) [1] | 88 mg/m³ |
| AGW (OEL TWA) [2] | 20 ppm |
| AGW (OEL C) | 176 mg/m³ |
| AGW (OEL C) [ppm] | 40 ppm |
| Chemical category | skin notation |
| **Germany - Biological limit values (TRGS 903)** | |
| BLV | 250 mg/g Kreatinin Parameter: Mandelic acid plus Phenylglyoxylic acid - Medium: urine - Sampling time: end of shift |
| **Gibraltar - Occupational Exposure Limits** | |
| OEL TWA | 442 mg/m³ |
| OEL TWA | 100 ppm |
| OEL STEL | 884 mg/m³ |
| OEL STEL | 200 ppm |
| Chemical category | skin notation |
| **Greece - Occupational Exposure Limits** | |
| OEL TWA | 435 mg/m³ |
| OEL TWA | 100 ppm |
| OEL STEL | 545 mg/m³ |
| OEL STEL | 125 ppm |
| **Hungary - Occupational Exposure Limits** | |
| AK (OEL TWA) | 442 mg/m³ |
| CK (OEL STEL) | 884 mg/m³ |
| Chemical category | Potential for cutaneous absorption |
| **Ireland - Occupational Exposure Limits** | |
| OEL TWA [1] | 442 mg/m³ |
| OEL TWA [2] | 100 ppm |
| OEL STEL | 884 mg/m³ |
| OEL STEL | 200 ppm |
| Chemical category | Potential for cutaneous absorption |
| **Italy - Occupational Exposure Limits** | |
| OEL TWA | 442 mg/m³ |
| OEL TWA | 100 ppm |
| OEL STEL | 884 mg/m³ |
| OEL STEL | 200 ppm |
| Chemical category | skin - potential for cutaneous absorption |
| **Latvia - Occupational Exposure Limits** | |
| OEL TWA | 442 mg/m³ |
| OEL TWA | 100 ppm |

| Ethylbenzene (100-41-4) | |
|---|---|
| OEL STEL | 884 mg/m³ |
| OEL STEL | 200 ppm |
| Chemical category | skin - potential for cutaneous exposure |
| **Lithuania - Occupational Exposure Limits** | |
| IPRV (OEL TWA) | 442 mg/m³ |
| IPRV (OEL TWA) [ppm] | 100 ppm |
| TPRV (OEL STEL) | 884 mg/m³ |
| TPRV (OEL STEL) [ppm] | 200 ppm |
| Chemical category | skin notation |
| **Luxembourg - Occupational Exposure Limits** | |
| OEL TWA | 442 mg/m³ |
| OEL TWA | 100 ppm |
| OEL STEL | 884 mg/m³ |
| OEL STEL | 200 ppm |
| Chemical category | Possibility of significant uptake through the skin |
| **Malta - Occupational Exposure Limits** | |
| OEL TWA | 442 mg/m³ |
| OEL TWA | 100 ppm |
| OEL STEL | 884 mg/m³ |
| OEL STEL | 200 ppm |
| Chemical category | Possibility of significant uptake through the skin |
| **Netherlands - Occupational Exposure Limits** | |
| TGG-8u (OEL TWA) | 215 mg/m³ |
| TGG-8u (OEL TWA) [ppm] | 48.6 ppm |
| TGG-15min (OEL STEL) | 430 mg/m³ |
| TGG-15min (OEL STEL) [ppm] | 97.3 ppm |
| MAC chemical category | skin notation |
| **Poland - Occupational Exposure Limits** | |
| NDS (OEL TWA) | 200 mg/m³ |
| NDSCh (OEL STEL) | 400 mg/m³ |
| **Portugal - Occupational Exposure Limits** | |
| OEL TWA | 442 mg/m³ (indicative limit value) |
| OEL TWA | 100 ppm (indicative limit value) |
| OEL STEL | 884 mg/m³ (indicative limit value) |
| OEL STEL | 200 ppm (indicative limit value) |
| Chemical category | A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans, skin - potential for cutaneous exposure indicative limit value |
| **Romania - Occupational Exposure Limits** | |
| OEL TWA | 442 mg/m³ |

| Ethylbenzene (100-41-4) | |
|---|---|
| OEL TWA | 100 ppm |
| OEL STEL | 884 mg/m³ |
| OEL STEL | 200 ppm |
| Chemical category | skin notation |
| **Romania - Biological limit values** | |
| BLV | 1.5 g/g Kreatinin Parameter: Mandelic acid - Medium: urine - Sampling time: end of work week |
| **Slovakia - Occupational Exposure Limits** | |
| NPHV (OEL TWA) [1] | 442 mg/m³ |
| NPHV (OEL TWA) [2] | 100 ppm |
| NPHV (OEL C) | 884 mg/m³ |
| Chemical category | Potential for cutaneous absorption |
| **Slovakia - Biological limit values** | |
| BLV | 12 mg/l Parameter: 2 and 4-Ethylphenol - Medium: urine - Sampling time: end of exposure or work shift (also after all work shifts for long-term exposure)<br>1600 mg/l Parameter: Mandelic acid and Phenylglycolic acid - Medium: urine - Sampling time: end of exposure or work shift (also after all work shifts for long-term exposure) |
| **Slovenia - Occupational Exposure Limits** | |
| OEL TWA | 442 mg/m³ |
| OEL TWA | 100 ppm |
| OEL STEL | 884 mg/m³ |
| OEL STEL | 200 ppm |
| Chemical category | Potential for cutaneous absorption |
| **Spain - Occupational Exposure Limits** | |
| VLA-ED (OEL TWA) [1] | 441 mg/m³ |
| VLA-ED (OEL TWA) [2] | 100 ppm |
| VLA-EC (OEL STEL) | 884 mg/m³ |
| VLA-EC (OEL STEL) [ppm] | 200 ppm |
| Chemical category | skin - potential for cutaneous absorption |
| **Spain - Biological limit values** | |
| BLV | 700 mg/g Kreatinin Parameter: Mandelic acid plus Phenylglyoxylic acid - Medium: urine - Sampling time: end of workweek |
| **Sweden - Occupational Exposure Limits** | |
| NGV (OEL TWA) | 220 mg/m³ |
| NGV (OEL TWA) [ppm] | 50 ppm |
| KGV (OEL STEL) | 884 mg/m³ |
| KGV (OEL STEL) [ppm] | 200 ppm |
| Chemical category | skin notation |
| **United Kingdom - Occupational Exposure Limits** | |
| WEL TWA (OEL TWA) [1] | 441 mg/m³ |
| WEL TWA (OEL TWA) [2] | 100 ppm |

| Ethylbenzene (100-41-4) | |
|---|---|
| WEL STEL (OEL STEL) | 552 mg/m³ |
| WEL STEL (OEL STEL) [ppm] | 125 ppm |
| WEL chemical category | Potential for cutaneous absorption |
| **Norway - Occupational Exposure Limits** | |
| Grenseverdi (OEL TWA) [1] | 20 mg/m³ |
| Grenseverdi (OEL TWA) [2] | 5 ppm |
| Korttidsverdi (OEL STEL) | 30 mg/m³ (value calculated) |
| Korttidsverdi (OEL STEL) [ppm] | 10 ppm (value calculated) |
| Chemical category | skin notation, Carcinogen |
| **Switzerland - Occupational Exposure Limits** | |
| MAK (OEL TWA) [1] | 435 mg/m³ |
| MAK (OEL TWA) [2] | 100 ppm |
| KZGW (OEL STEL) | 435 mg/m³ |
| KZGW (OEL STEL) [ppm] | 100 ppm |
| Chemical category | skin notation |
| **Switzerland - Biological limit values** | |
| BAT (BLV) | 600 mg/g Kreatinin Parameter: Mandelic acid and Phenylglyoxylacid - Medium: urine - Sampling time: end of shift (see also Styrene) |
| **Turkey - Occupational Exposure Limits** | |
| OEL TWA | 442 mg/m³ |
| OEL TWA | 100 ppm |
| OEL STEL | 884 mg/m³ |
| OEL STEL | 200 ppm |
| Chemical category | skin notation |
| **USA - ACGIH - Occupational Exposure Limits** | |
| Local name | Ethylbenzene |
| ACGIH OEL TWA [ppm] | 20 ppm |
| Remark (ACGIH) | TLV® Basis: URT & eye irr; ototoxicity; kidney eff; CNS impair. Notations: OTO (Ototoxicant); A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEI |
| ACGIH chemical category | Confirmed Animal Carcinogen with Unknown Relevance to Humans |
| Regulatory reference | ACGIH 2023 |
| **USA - ACGIH - Biological Exposure Indices** | |
| Local name | ETHYLBENZENE |
| BEI (BLV) | 0.15 g/g Kreatinin Parameter: Sum of mandelic acid and phenylglyoxylic acid (with hydrolysis) - Medium: urine - Sampling time: End of shift - Notations: Ns |
| Regulatory reference | ACGIH 2023 |

| Cumene (98-82-8) | |
|---|---|
| **EU - Indicative Occupational Exposure Limit (IOEL)** | |
| IOEL TWA | 100 mg/m³ |

| Cumene (98-82-8) | |
|---|---|
| IOEL TWA [ppm] | 20 ppm |
| IOEL STEL | 250 mg/m³ |
| IOEL STEL [ppm] | 50 ppm |
| **Austria - Occupational Exposure Limits** | |
| MAK (OEL TWA) | 100 mg/m³ |
| MAK (OEL TWA) [ppm] | 20 ppm |
| MAK (OEL STEL) | 250 mg/m³ |
| MAK (OEL STEL) [ppm] | 50 ppm |
| Chemical category | skin notation |
| **Belgium - Occupational Exposure Limits** | |
| OEL TWA | 100 mg/m³ |
| OEL TWA | 20 ppm |
| OEL STEL | 250 mg/m³ |
| OEL STEL | 50 ppm |
| Chemical category | Skin, skin notation |
| **Bulgaria - Occupational Exposure Limits** | |
| OEL TWA | 50 mg/m³ (exposure monitoring should take into account the relevant biological monitoring methods of the Scientific Committee on Occupational Exposure Limits (SCOEL) under Annex 2) |
| OEL TWA | 10 ppm (exposure monitoring should take into account the relevant biological monitoring methods of the Scientific Committee on Occupational Exposure Limits (SCOEL) under Annex 2) |
| OEL STEL | 250 mg/m³ (exposure monitoring should take into account the relevant biological monitoring methods of the Scientific Committee on Occupational Exposure Limits (SCOEL) under Annex 2) |
| OEL STEL | 50 ppm (exposure monitoring should take into account the relevant biological monitoring methods of the Scientific Committee on Occupational Exposure Limits (SCOEL) under Annex 2) |
| **Bulgaria - Biological limit values** | |
| BLV | 7 mg/g Kreatinin Parameter: 2-Phenol-2 propanol - Medium: urine - Sampling time: up to two hours after the end of work shift (possible significant absorption through the skin) |
| **Croatia - Occupational Exposure Limits** | |
| GVI (OEL TWA) [1] | 50 mg/m³ (during the monitoring of exposure the relevant value of biological monitoring shall be taken into account as suggested by the Scientific Committee for Occupational Exposure Limits to Chemical Agents (SCOEL) (Cumene) |
| GVI (OEL TWA) [2] | 10 ppm (during the monitoring of exposure the relevant value of biological monitoring shall be taken into account as suggested by the Scientific Committee for Occupational Exposure Limits to Chemical Agents (SCOEL) (Cumene) |
| KGVI (OEL STEL) | 250 mg/m³ (during the monitoring of exposure the relevant value of biological monitoring shall be taken into account as suggested by the Scientific Committee for Occupational Exposure Limits to Chemical Agents (SCOEL) (Cumene) |
| KGVI (OEL STEL) [ppm] | 50 ppm |
| Chemical category | skin notation during the monitoring of exposure the relevant value of biological monitoring shall be taken into account as suggested by the Scientific Committee for Occupational Exposure Limits to Chemical Agents (SCOEL) |

| Cumene (98-82-8) | |
|---|---|
| **Cyprus - Occupational Exposure Limits** | |
| OEL TWA | 50 mg/m³ (inhalable fraction) |
| OEL TWA | 10 ppm (inhalable fraction) |
| OEL STEL | 250 mg/m³ (inhalable fraction) |
| OEL STEL | 50 ppm (inhalable fraction) |
| Chemical category | Skin-potential for cutaneous absorption |
| **Czech Republic - Occupational Exposure Limits** | |
| PEL (OEL TWA) | 100 mg/m³ |
| Chemical category | Potential for cutaneous absorption |
| **Denmark - Occupational Exposure Limits** | |
| OEL TWA [1] | 100 mg/m³ |
| OEL TWA [2] | 20 ppm |
| OEL STEL | 200 mg/m³ |
| OEL STEL | 40 ppm |
| Chemical category | Potential for cutaneous absorption |
| **Estonia - Occupational Exposure Limits** | |
| OEL TWA | 50 mg/m³ |
| OEL TWA | 10 ppm |
| OEL STEL | 250 mg/m³ |
| OEL STEL | 50 ppm |
| Chemical category | skin notation |
| **Finland - Occupational Exposure Limits** | |
| HTP (OEL TWA) [1] | 100 mg/m³ |
| HTP (OEL TWA) [2] | 20 ppm |
| HTP (OEL STEL) | 250 mg/m³ |
| HTP (OEL STEL) [ppm] | 50 ppm |
| Chemical category | Potential for cutaneous absorption |
| **France - Occupational Exposure Limits** | |
| VME (OEL TWA) | 100 mg/m³ |
| VME (OEL TWA) [ppm] | 20 ppm |
| VLE (OEL C/STEL) | 250 mg/m³ |
| VLE (OEL C/STEL) [ppm] | 50 ppm |
| Chemical category | Carcinogen category 1B, Risk of cutaneous absorption |
| **Germany - Occupational Exposure Limits (TRGS 900)** | |
| AGW (OEL TWA) [1] | 50 mg/m³ |
| AGW (OEL TWA) [2] | 10 ppm |
| AGW (OEL C) | 200 mg/m³ |
| AGW (OEL C) [ppm] | 40 ppm |
| Chemical category | skin notation |

| Cumene (98-82-8) | |
|---|---|
| **Germany - Biological limit values (TRGS 903)** | |
| BLV | 10 mg/g Kreatinin Parameter: 2-Phenyl-2-propanol (after hydrolysis) - Medium: urine - Sampling time: end of shift |
| **Gibraltar - Occupational Exposure Limits** | |
| OEL TWA | 100 mg/m³ |
| OEL TWA | 20 ppm |
| OEL STEL | 250 mg/m³ |
| OEL STEL | 50 ppm |
| Chemical category | skin notation |
| **Greece - Occupational Exposure Limits** | |
| OEL TWA | 50 mg/m³ (during the monitoring of the exposure, the relevant biological monitoring values recommended by the Scientific Committee on Occupational Exposure Limit Values (SCOEL) should be taken under consideration) |
| OEL TWA | 10 ppm (during the monitoring of the exposure, the relevant biological monitoring values recommended by the Scientific Committee on Occupational Exposure Limit Values (SCOEL) should be taken under consideration) |
| OEL STEL | 250 mg/m³ (during the monitoring of the exposure, the relevant biological monitoring values recommended by the Scientific Committee on Occupational Exposure Limit Values (SCOEL) should be taken under consideration) |
| OEL STEL | 50 ppm (during the monitoring of the exposure, the relevant biological monitoring values recommended by the Scientific Committee on Occupational Exposure Limit Values (SCOEL) should be taken under consideration) |
| Chemical category | skin - potential for cutaneous absorption during the monitoring of the exposure, the relevant biological monitoring values recommended by the Scientific Committee on Occupational Exposure Limit Values (SCOEL) should be taken under consideration |
| **Hungary - Occupational Exposure Limits** | |
| AK (OEL TWA) | 100 mg/m³ |
| CK (OEL STEL) | 250 mg/m³ |
| Chemical category | Potential for cutaneous absorption |
| **Ireland - Occupational Exposure Limits** | |
| OEL TWA [1] | 100 mg/m³ |
| OEL TWA [2] | 20 ppm |
| OEL STEL | 250 mg/m³ |
| OEL STEL | 50 ppm |
| Chemical category | Potential for cutaneous absorption |
| **Italy - Occupational Exposure Limits** | |
| OEL TWA | 100 mg/m³ |
| OEL TWA | 20 ppm |
| OEL STEL | 250 mg/m³ |
| OEL STEL | 50 ppm |
| Chemical category | skin - potential for cutaneous absorption |
| **Latvia - Occupational Exposure Limits** | |
| OEL TWA | 100 mg/m³ |

| Cumene (98-82-8) | |
|---|---|
| OEL TWA | 20 ppm |
| OEL STEL | 250 mg/m³ |
| OEL STEL | 50 ppm |
| Chemical category | skin - potential for cutaneous exposure |
| **Latvia - Biological limit values** | |
| BEI (BLV) | 7 µg/g Kreatinin Parameter: Cumene - Medium: urine - Sampling time: no later than two hours after the end of the shift |
| **Lithuania - Occupational Exposure Limits** | |
| IPRV (OEL TWA) | 50 mg/m³ (in addition to the indicative occupational exposure limit values, biological monitoring values must be taken into account when monitoring exposure) |
| IPRV (OEL TWA) [ppm] | 10 ppm (in addition to the indicative occupational exposure limit values, biological monitoring values must be taken into account when monitoring exposure) |
| TPRV (OEL STEL) | 170 mg/m³ (in addition to the indicative occupational exposure limit values, biological monitoring values must be taken into account when monitoring exposure) |
| TPRV (OEL STEL) [ppm] | 35 ppm (in addition to the indicative occupational exposure limit values, biological monitoring values must be taken into account when monitoring exposure) |
| Chemical category | skin notation |
| **Luxembourg - Occupational Exposure Limits** | |
| OEL TWA | 50 mg/m³ |
| OEL TWA | 10 ppm |
| OEL STEL | 250 mg/m³ |
| OEL STEL | 50 ppm |
| Chemical category | Possibility of significant uptake through the skin |
| **Malta - Occupational Exposure Limits** | |
| OEL TWA | 50 mg/m³ |
| OEL TWA | 10 ppm |
| OEL STEL | 250 mg/m³ |
| OEL STEL | 50 ppm |
| Chemical category | Possibility of significant uptake through the skin |
| **Netherlands - Occupational Exposure Limits** | |
| TGG-8u (OEL TWA) | 100 mg/m³ |
| TGG-8u (OEL TWA) [ppm] | 10 ppm |
| TGG-15min (OEL STEL) | 250 mg/m³ |
| TGG-15min (OEL STEL) [ppm] | 50 ppm |
| MAC chemical category | skin notation |
| **Poland - Occupational Exposure Limits** | |
| NDS (OEL TWA) | 100 mg/m³ |
| NDSCh (OEL STEL) | 250 mg/m³ |
| **Portugal - Occupational Exposure Limits** | |
| OEL TWA | 50 mg/m³ (indicative limit value) |
| OEL TWA | 10 ppm (indicative limit value) |

| Cumene (98-82-8) | |
|---|---|
| OEL STEL | 250 mg/m³ (indicative limit value) |
| OEL STEL | 50 ppm (indicative limit value) |
| Chemical category | skin - potential for cutaneous exposure indicative limit value |
| **Romania - Occupational Exposure Limits** | |
| OEL TWA | 100 mg/m³ |
| OEL TWA | 20 ppm |
| OEL STEL | 250 mg/m³ |
| OEL STEL | 50 ppm |
| Chemical category | skin notation |
| **Slovakia - Occupational Exposure Limits** | |
| NPHV (OEL TWA) [1] | 500 mg/m³ |
| NPHV (OEL TWA) [2] | 20 ppm |
| NPHV (OEL C) | 250 mg/m³ |
| Chemical category | Potential for cutaneous absorption |
| **Slovakia - Biological limit values** | |
| BLV | 10.6 mg/l Parameter: 2-Phenylpropane - Medium: urine - Sampling time: end of exposure or work shift |
| **Slovenia - Occupational Exposure Limits** | |
| OEL TWA | 50 mg/m³ |
| OEL TWA | 10 ppm |
| OEL STEL | 250 mg/m³ |
| OEL STEL | 50 ppm |
| Chemical category | Potential for cutaneous absorption |
| **Spain - Occupational Exposure Limits** | |
| VLA-ED (OEL TWA) [1] | 100 mg/m³ |
| VLA-ED (OEL TWA) [2] | 20 ppm |
| VLA-EC (OEL STEL) | 250 mg/m³ |
| VLA-EC (OEL STEL) [ppm] | 50 ppm |
| Chemical category | C1B, skin - potential for cutaneous absorption |
| **Spain - Biological limit values** | |
| BLV | 7 mg/g Kreatinin Parameter: 2-Phenyl-2-propanol - Medium: urine - Sampling time: end of shift (with hydrolysis) |
| **Sweden - Occupational Exposure Limits** | |
| NGV (OEL TWA) | 120 mg/m³ |
| NGV (OEL TWA) [ppm] | 25 ppm |
| KGV (OEL STEL) | 250 mg/m³ |
| KGV (OEL STEL) [ppm] | 50 ppm |
| Chemical category | skin notation |
| **United Kingdom - Occupational Exposure Limits** | |
| WEL TWA (OEL TWA) [1] | 125 mg/m³ |

| Cumene (98-82-8) | |
|---|---|
| WEL TWA (OEL TWA) [2] | 25 ppm |
| WEL STEL (OEL STEL) | 375 mg/m³ |
| WEL STEL (OEL STEL) [ppm] | 75 ppm |
| WEL chemical category | Potential for cutaneous absorption |
| **Norway - Occupational Exposure Limits** | |
| Grenseverdi (OEL TWA) [1] | 50 mg/m³ |
| Grenseverdi (OEL TWA) [2] | 10 ppm |
| Korttidsverdi (OEL STEL) | 250 mg/m³ (value from the regulation) |
| Korttidsverdi (OEL STEL) [ppm] | 50 ppm (value from the regulation) |
| Chemical category | skin notation, Carcinogen |
| **Switzerland - Occupational Exposure Limits** | |
| MAK (OEL TWA) [1] | 100 mg/m³ |
| MAK (OEL TWA) [2] | 20 ppm |
| KZGW (OEL STEL) | 400 mg/m³ |
| KZGW (OEL STEL) [ppm] | 80 ppm |
| Chemical category | skin notation, Category C2 carcinogen |
| **Switzerland - Biological limit values** | |
| BAT (BLV) | 20 mg/g Kreatinin Parameter: 2-Phenyl-2-propanol after hydrolysis - Medium: urine - Sampling time: end of shift<br>Parameter: 2-Phenyl-2-propanol after hydrolysis - Medium: urine - Sampling time: end of shift |
| **Turkey - Occupational Exposure Limits** | |
| OEL TWA | 100 mg/m³ |
| OEL TWA | 20 ppm |
| OEL STEL | 250 mg/m³ |
| OEL STEL | 50 ppm |
| Chemical category | skin notation |
| **USA - ACGIH - Occupational Exposure Limits** | |
| Local name | Cumene |
| ACGIH OEL TWA [ppm] | 50 ppm |
| Remark (ACGIH) | TLV® Basis: URT adenoma; neurological eff. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans) |
| ACGIH chemical category | Confirmed Animal Carcinogen with Unknown Relevance to Humans |
| Regulatory reference | ACGIH 2023 |

| Methyl ethyl ketone (78-93-3) | |
|---|---|
| **EU - Indicative Occupational Exposure Limit (IOEL)** | |
| IOEL TWA | 600 mg/m³ |
| IOEL TWA [ppm] | 200 ppm |
| IOEL STEL | 900 mg/m³ |
| IOEL STEL [ppm] | 300 ppm |

| Methyl ethyl ketone (78-93-3) | |
|---|---|
| **Austria - Occupational Exposure Limits** | |
| MAK (OEL TWA) | 295 mg/m³ |
| MAK (OEL TWA) [ppm] | 100 ppm |
| MAK (OEL STEL) | 590 mg/m³ |
| MAK (OEL STEL) [ppm] | 200 ppm |
| Chemical category | skin notation |
| **Belgium - Occupational Exposure Limits** | |
| OEL TWA | 600 mg/m³ |
| OEL TWA | 200 ppm |
| OEL STEL | 900 mg/m³ |
| OEL STEL | 300 ppm |
| **Bulgaria - Occupational Exposure Limits** | |
| OEL TWA | 590 mg/m³ |
| OEL STEL | 885 mg/m³ |
| **Croatia - Occupational Exposure Limits** | |
| GVI (OEL TWA) [1] | 600 mg/m³ |
| GVI (OEL TWA) [2] | 200 ppm |
| KGVI (OEL STEL) | 900 mg/m³ |
| KGVI (OEL STEL) [ppm] | 300 ppm |
| **Croatia - Biological limit values** | |
| BLV | 2.6 mg/g Kreatinin Parameter: Ethyl methyl ketone - Medium: urine - Sampling time: at the end of the work shift (calculated on the average Creatinine value of 1.2 g/L urine) |
| **Cyprus - Occupational Exposure Limits** | |
| OEL TWA | 600 mg/m³ |
| OEL TWA | 200 ppm |
| OEL STEL | 900 mg/m³ |
| OEL STEL | 300 ppm |
| **Czech Republic - Occupational Exposure Limits** | |
| PEL (OEL TWA) | 600 mg/m³ |
| **Denmark - Occupational Exposure Limits** | |
| OEL TWA [1] | 145 mg/m³ |
| OEL TWA [2] | 50 ppm |
| OEL STEL | 290 mg/m³ |
| OEL STEL | 100 ppm |
| Chemical category | Potential for cutaneous absorption |
| **Estonia - Occupational Exposure Limits** | |
| OEL TWA | 600 mg/m³ |
| OEL TWA | 200 ppm |
| OEL STEL | 900 mg/m³ |

| Methyl ethyl ketone (78-93-3) | |
|---|---|
| OEL STEL | 300 ppm |
| **Finland - Occupational Exposure Limits** | |
| HTP (OEL TWA) [1] | 60 mg/m³ |
| HTP (OEL TWA) [2] | 20 ppm |
| HTP (OEL STEL) | 300 mg/m³ |
| HTP (OEL STEL) [ppm] | 100 ppm |
| Chemical category | Potential for cutaneous absorption |
| **France - Occupational Exposure Limits** | |
| VME (OEL TWA) | 600 mg/m³ |
| VME (OEL TWA) [ppm] | 200 ppm |
| VLE (OEL C/STEL) | 900 mg/m³ |
| VLE (OEL C/STEL) [ppm] | 300 ppm |
| Chemical category | Risk of cutaneous absorption |
| **France - Biological limit values** | |
| BLV | Parameter: Methylethylketone - Medium: urine - Sampling time: end of shift (per the Authority, the values for this substance must be decided and/or determined on a case by case basis. Guidance for the calculation of and interpretation of values is provided in the source) |
| **Germany - Occupational Exposure Limits (TRGS 900)** | |
| AGW (OEL TWA) [1] | 600 mg/m³ |
| AGW (OEL TWA) [2] | 200 ppm |
| AGW (OEL C) | 600 mg/m³ |
| AGW (OEL C) [ppm] | 200 ppm |
| Chemical category | skin notation |
| **Germany - Biological limit values (TRGS 903)** | |
| BLV | 2 mg/l Parameter: 2-Butanone - Medium: urine - Sampling time: end of shift |
| **Gibraltar - Occupational Exposure Limits** | |
| OEL TWA | 600 mg/m³ |
| OEL TWA | 200 ppm |
| OEL STEL | 900 mg/m³ |
| OEL STEL | 300 ppm |
| **Greece - Occupational Exposure Limits** | |
| OEL TWA | 600 mg/m³ |
| OEL TWA | 200 ppm |
| OEL STEL | 900 mg/m³ |
| OEL STEL | 300 ppm |
| **Hungary - Occupational Exposure Limits** | |
| AK (OEL TWA) | 600 mg/m³ |
| CK (OEL STEL) | 900 mg/m³ |
| Chemical category | Potential for cutaneous absorption |

| Methyl ethyl ketone (78-93-3) | |
|---|---|
| **Ireland - Occupational Exposure Limits** | |
| OEL TWA [1] | 600 mg/m³ |
| OEL TWA [2] | 200 ppm |
| OEL STEL | 900 mg/m³ |
| OEL STEL | 300 ppm |
| Chemical category | Potential for cutaneous absorption |
| **Italy - Occupational Exposure Limits** | |
| OEL TWA | 600 mg/m³ |
| OEL TWA | 200 ppm |
| OEL STEL | 900 mg/m³ |
| OEL STEL | 300 ppm |
| **Latvia - Occupational Exposure Limits** | |
| OEL TWA | 200 mg/m³ |
| OEL TWA | 67 ppm |
| OEL STEL | 900 mg/m³ |
| OEL STEL | 300 ppm |
| **Luxembourg - Occupational Exposure Limits** | |
| OEL TWA | 600 mg/m³ |
| OEL TWA | 200 ppm |
| OEL STEL | 900 mg/m³ |
| OEL STEL | 300 ppm |
| **Malta - Occupational Exposure Limits** | |
| OEL TWA | 600 mg/m³ |
| OEL TWA | 200 ppm |
| OEL STEL | 900 mg/m³ |
| OEL STEL | 300 ppm |
| **Netherlands - Occupational Exposure Limits** | |
| TGG-8u (OEL TWA) | 590 mg/m³ |
| TGG-8u (OEL TWA) [ppm] | 197 ppm |
| TGG-15min (OEL STEL) | 900 mg/m³ |
| TGG-15min (OEL STEL) [ppm] | 300 ppm |
| MAC chemical category | skin notation |
| **Poland - Occupational Exposure Limits** | |
| NDS (OEL TWA) | 590 |
| NDSCh (OEL STEL) | 900 |
| **Portugal - Occupational Exposure Limits** | |
| OEL TWA | 600 mg/m³ (indicative limit value) |
| OEL TWA | 200 ppm (indicative limit value) |
| OEL STEL | 900 mg/m³ (indicative limit value) |

| Methyl ethyl ketone (78-93-3) | |
|---|---|
| OEL STEL | 300 ppm (indicative limit value) |
| **Romania - Occupational Exposure Limits** | |
| OEL TWA | 600 mg/m³ |
| OEL TWA | 200 ppm |
| OEL STEL | 900 mg/m³ |
| OEL STEL | 300 ppm |
| **Romania - Biological limit values** | |
| BLV | 2 mg/l Parameter: Methylethylketone - Medium: urine - Sampling time: end of shift |
| **Slovakia - Occupational Exposure Limits** | |
| NPHV (OEL TWA) [1] | 600 mg/m³ |
| NPHV (OEL TWA) [2] | 200 ppm |
| NPHV (OEL C) | 900 mg/m³ |
| **Slovenia - Occupational Exposure Limits** | |
| OEL TWA | 600 mg/m³ |
| OEL TWA | 200 ppm |
| OEL STEL | 900 mg/m³ |
| OEL STEL | 300 ppm |
| Chemical category | Potential for cutaneous absorption |
| **Spain - Occupational Exposure Limits** | |
| VLA-ED (OEL TWA) [1] | 600 mg/m³ |
| VLA-ED (OEL TWA) [2] | 200 ppm |
| VLA-EC (OEL STEL) | 900 mg/m³ |
| VLA-EC (OEL STEL) [ppm] | 300 ppm |
| **Spain - Biological limit values** | |
| BLV | 2 mg/l Parameter: Methyl ethyl ketone - Medium: urine - Sampling time: end of shift |
| **Sweden - Occupational Exposure Limits** | |
| NGV (OEL TWA) | 150 mg/m³ |
| NGV (OEL TWA) [ppm] | 50 ppm |
| KGV (OEL STEL) | 900 mg/m³ |
| KGV (OEL STEL) [ppm] | 600 ppm |
| **United Kingdom - Occupational Exposure Limits** | |
| WEL TWA (OEL TWA) [1] | 600 mg/m³ |
| WEL TWA (OEL TWA) [2] | 200 ppm |
| WEL STEL (OEL STEL) | 899 mg/m³ |
| WEL STEL (OEL STEL) [ppm] | 300 ppm |
| WEL chemical category | Potential for cutaneous absorption |
| **Norway - Occupational Exposure Limits** | |
| Grenseverdi (OEL TWA) [1] | 220 mg/m³ |
| Grenseverdi (OEL TWA) [2] | 75 ppm |

| Methyl ethyl ketone (78-93-3) | |
|---|---|
| Korttidsverdi (OEL STEL) | 275 mg/m³ (value calculated) |
| Korttidsverdi (OEL STEL) [ppm] | 112.5 ppm (value calculated) |
| **Switzerland - Occupational Exposure Limits** | |
| MAK (OEL TWA) [1] | 590 mg/m³ |
| MAK (OEL TWA) [2] | 200 ppm |
| KZGW (OEL STEL) | 590 mg/m³ |
| KZGW (OEL STEL) [ppm] | 200 ppm |
| Chemical category | skin notation |
| **Switzerland - Biological limit values** | |
| BAT (BLV) | 2 mg/l Parameter: 2-Butanone - Medium: urine - Sampling time: end of shift, before subsequent shift or 16 hour<br>27.7 µmol/l Parameter: 2-Butanone - Medium: urine - Sampling time: end of shift, before subsequent shift or 16 hour |
| **Turkey - Occupational Exposure Limits** | |
| OEL TWA | 600 mg/m³ |
| OEL TWA | 200 ppm |
| OEL STEL | 900 mg/m³ |
| OEL STEL | 300 ppm |
| **USA - ACGIH - Occupational Exposure Limits** | |
| Local name | Methyl ethyl ketone (MEK) |
| ACGIH OEL TWA [ppm] | 200 ppm |
| ACGIH OEL STEL [ppm] | 300 ppm |
| Remark (ACGIH) | TLV® Basis: Embryo/fetal dam; URT irr; headache; dizziness. Notations: Skin; BEI |
| Regulatory reference | ACGIH 2024 |
| **USA - ACGIH - Biological Exposure Indices** | |
| Local name | Methyl ethyl ketone |
| BEI (BLV) | 2 mg/l Parameter: MEK - Medium: urine - Sampling time: end of shift (nonspecific) |
| Regulatory reference | ACGIH 2024 |

| Xylene (1330-20-7) | |
|---|---|
| **EU - Indicative Occupational Exposure Limit (IOEL)** | |
| IOEL TWA | 221 mg/m³ |
| IOEL TWA [ppm] | 50 ppm |
| IOEL STEL | 442 mg/m³ |
| IOEL STEL [ppm] | 100 ppm |
| **Austria - Occupational Exposure Limits** | |
| MAK (OEL TWA) | 221 mg/m³ |
| MAK (OEL TWA) [ppm] | 50 ppm |
| MAK (OEL STEL) | 442 |
| MAK (OEL STEL) [ppm] | 100 ppm |

| Xylene (1330-20-7) | |
|---|---|
| **Belgium - Occupational Exposure Limits** | |
| OEL TWA | 221 |
| OEL TWA | 50 ppm |
| OEL STEL | 442 mg/m³ |
| OEL STEL | 100 ppm |
| **Denmark - Occupational Exposure Limits** | |
| OEL TWA [1] | 109 mg/m³ |
| OEL TWA [2] | 25 ppm |
| OEL STEL | 218 mg/m³ |
| OEL STEL | 50 ppm |
| **Finland - Occupational Exposure Limits** | |
| HTP (OEL TWA) [1] | 220 mg/m³ |
| HTP (OEL TWA) [2] | 50 ppm |
| HTP (OEL STEL) | 440 mg/m³ |
| HTP (OEL STEL) [ppm] | 100 ppm |
| **France - Occupational Exposure Limits** | |
| VME (OEL TWA) | 221 mg/m³ [VME] (restrictive limit) |
| VME (OEL TWA) [ppm] | 50 ppm [VME] (restrictive limit) |
| VLE (OEL C/STEL) | 442 mg/m³ [VLCT] (restrictive limit) |
| VLE (OEL C/STEL) [ppm] | 100 ppm [VLCT] (restrictive limit) |
| Chemical category | Risk of cutaneous absorption |
| **Germany - Occupational Exposure Limits (TRGS 900)** | |
| AGW (OEL TWA) [1] | 440 mg/m³ |
| AGW (OEL TWA) [2] | 100 ppm |
| AGW (OEL C) | 880 mg/m³ |
| AGW (OEL C) [ppm] | 200 ppm |
| **Hungary - Occupational Exposure Limits** | |
| AK (OEL TWA) | 221 mg/m³ |
| CK (OEL STEL) | 442 mg/m³ |
| **Ireland - Occupational Exposure Limits** | |
| OEL TWA [1] | 221 mg/m³ |
| OEL TWA [2] | 50 ppm |
| OEL STEL | 442 mg/m³ |
| OEL STEL | 100 ppm |
| **Italy - Occupational Exposure Limits** | |
| OEL TWA | 50 ppm TWA (pure) |
| OEL STEL | 100 ppm STEL (pure) |
| Chemical category | skin - potential for cutaneous absorption |

| Xylene (1330-20-7) | |
|---|---|
| **Latvia - Occupational Exposure Limits** | |
| OEL TWA | 221 mg/m³ |
| OEL TWA | 50 ppm |
| OEL STEL | 442 mg/m³ |
| OEL STEL | 100 ppm |
| **Poland - Occupational Exposure Limits** | |
| NDS (OEL TWA) | 100 mg/m³ |
| **Romania - Occupational Exposure Limits** | |
| OEL TWA | 221 mg/m³ |
| OEL TWA | 50 ppm |
| OEL STEL | 422 mg/m³ |
| OEL STEL | 100 ppm |
| **Spain - Occupational Exposure Limits** | |
| VLA-ED (OEL TWA) [1] | 221 mg/m³ |
| VLA-ED (OEL TWA) [2] | 50 ppm |
| VLA-EC (OEL STEL) | 442 mg/m³ |
| VLA-EC (OEL STEL) [ppm] | 100 ppm |
| **Sweden - Occupational Exposure Limits** | |
| NGV (OEL TWA) | 221 mg/m³ |
| NGV (OEL TWA) [ppm] | 50 ppm |
| KGV (OEL STEL) | 442 mg/m³ |
| KGV (OEL STEL) [ppm] | 100 ppm |
| **United Kingdom - Occupational Exposure Limits** | |
| WEL TWA (OEL TWA) [1] | 221 mg/m³ |
| WEL TWA (OEL TWA) [2] | 50 ppm |
| WEL STEL (OEL STEL) | 442 mg/m³ |
| WEL STEL (OEL STEL) [ppm] | 100 ppm |
| **Switzerland - Occupational Exposure Limits** | |
| MAK (OEL TWA) [1] | 435 mg/m³ |
| MAK (OEL TWA) [2] | 100 ppm |
| KZGW (OEL STEL) | 870 mg/m³ |
| KZGW (OEL STEL) [ppm] | 200 ppm |
| **USA - ACGIH - Occupational Exposure Limits** | |
| Local name | Xylene, mixed isomers (Dimethylbenzene) |
| ACGIH OEL TWA | 221 mg/m³ |
| ACGIH OEL TWA [ppm] | 50 ppm |
| ACGIH OEL STEL | 442 mg/m³ |
| ACGIH OEL STEL [ppm] | 100 ppm |

| Xylene (1330-20-7) | |
|---|---|
| Remark (ACGIH) | TLV® Basis: URT & eye irr; hematologic eff; ototoxycity (for mixtures containing p-xylene); CNS impair. Notations: OTO (for mixtures containing p-xylene); A4 (Not classifiable as a Human Carcinogen); BEI |
| Regulatory reference | ACGIH 2023 |
| **USA - ACGIH - Biological Exposure Indices** | |
| Local name | XYLENES (Technical or commercial grade) |
| BEI (BLV) | 1.5 g/g Kreatinin Parameter: Methylhippuric acids - Medium: urine - Sampling time: End of shift |
| Regulatory reference | ACGIH 2023 |

#### 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:**
Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

#### 8.2.2. Personal protection equipment

**Personal protective equipment:**
Gloves. Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory protection.

**Personal protective equipment symbol(s):**

#### 8.2.2.1. Eye and face protection

**Eye protection:**
Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles [EN 166]

#### 8.2.2.2. Skin protection

**Skin and body protection:**
Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.[ EN 14605:2005 and EN 13034:2005]

**Hand protection:**
Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. Suitable gloves for this specific application can be recommended by the glove supplier.

#### 8.2.2.3. Respiratory protection

**Respiratory protection:**
Wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with gas filter (type A2). Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

No additional information available

## SECTION 9: Physical and chemical properties

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

| | | |
|---|---|---|
| Physical state | : | Liquid |
| Colour | : | Clear. |
| Odour | : | characteristic. Solvent. |
| Odour threshold | : | Not available |
| Melting point | : | Not available |
| Freezing point | : | Not available |
| Boiling point | : | Not available |
| Flammability | : | Not available |
| Explosion limits | : | Not available |
| Lower explosive limit (LEL) | : | Not available |
| Upper explosive limit (UEL) | : | Not available |
| Flash point | : | -20 °C (-4 °F) (Acetone value) |
| Auto-ignition temperature | : | Not available |
| Decomposition temperature | : | Not available |
| pH | : | Not available |
| Viscosity, kinematic | : | Not available |
| Solubility | : | Not available |
| Partition coefficient n-octanol/water (Log Kow) | : | Not available |
| Vapour pressure | : | Not available |
| Vapour pressure at 50°C | : | Not available |
| Density | : | Not available |
| Relative density | : | Not available |
| Relative vapour density at 20°C | : | Not available |
| Particle size | : | Not applicable |
| Particle size distribution | : | Not applicable |
| Particle shape | : | Not applicable |
| Particle aspect ratio | : | Not applicable |
| Particle aggregation state | : | Not applicable |
| Particle agglomeration state | : | Not applicable |
| Particle specific surface area | : | Not applicable |
| Particle dustiness | : | 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

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

Ignition sources. Heat. Sparks. Open flame. Static electricity.

### 10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents. selected amines with alkali metals and halogens.

### 10.6. Hazardous decomposition products

Carbon oxides (CO, CO2).

## SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

| Acetone (67-64-1) | |
|---|---|
| LD50 oral rat | 5800 mg/kg (Source: NLM_CIP) |
| LD50 dermal rat | > 15700 mg/kg |
| LD50 dermal rabbit | > 15700 mg/kg (Source: OECD_SIDS) |
| LC50 Inhalation - Rat | 50100 mg/m³ (Exposure time: 8 h Source: OECD_SIDS) |
| LC50 Inhalation - Rat (Vapours) | 76 mg/l Source: ECHA |

| Toluene (108-88-3) | |
|---|---|
| LD50 oral rat | 5000 mg/kg |
| LD50 dermal rabbit | 5000 mg/kg |
| LC50 Inhalation - Rat | 384 mg/m³ |
| LC50 Inhalation - Rat (Vapours) | > 20 mg/l Source: ECHA |

| Ethylbenzene (100-41-4) | |
|---|---|
| LD50 oral rat | 3500 mg/kg |
| LD50 dermal rabbit | 15400 mg/kg |
| LC50 Inhalation - Rat | 17.2 mg/l/4h |
| LC50 Inhalation - Rat [ppm] | 4000 ppm Source: ECHA, Harmonized classification of EU CLP |

| Cumene (98-82-8) | |
|---|---|
| LD50 oral rat | 2910 mg/kg Source: HSDB |
| LD50 oral | 2700 mg/kg body weight |

| Cumene (98-82-8) | |
|---|---|
| LD50 dermal rabbit | 12300 µl/kg |
| LC50 Inhalation - Rat [ppm] | > 3577 ppm 6 h |

| Methyl ethyl ketone (78-93-3) | |
|---|---|
| LD50 oral rat | 2483 mg/kg (Source: JAPAN_GHS) |
| LD50 oral | 4000 mg/kg body weight |
| LD50 dermal rabbit | 5000 mg/kg (Source: JAPAN_GHS) |
| LC50 Inhalation - Rat [ppm] | 11700 ppm/4h |
| LC50 Inhalation - Rat (Vapours) | 32 mg/l Source: RTECS |

| Xylene (1330-20-7) | |
|---|---|
| LD50 oral rat | 3523 mg/kg |
| LD50 dermal rabbit | 12126 mg/kg body weight Animal: rabbit, Animal sex: male, Remarks on results: other: |
| LC50 Inhalation - Rat | 27124 mg/m³ (air) |
| LC50 Inhalation - Rat [ppm] | 5922 ppm |

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.

| Ethylbenzene (100-41-4) | |
|---|---|
| IARC group | 2B - Possibly carcinogenic to humans |

| Cumene (98-82-8) | |
|---|---|
| IARC group | 2B - Possibly carcinogenic to humans |

Reproductive toxicity : Suspected of damaging fertility or the unborn child.
STOT-single exposure : May cause respiratory irritation.
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

The mixture contains Methyl ethyl ketone (CAS#78-93-3), which is 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 12: Ecological information

### 12.1. Toxicity

Ecology - general : No information available.
Hazardous to the aquatic environment, short–term (acute) : Not classified
Hazardous to the aquatic environment, long–term (chronic) : Not classified

### 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

The mixture contains  Methyl ethyl ketone (CAS#78-93-3), which is 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 %

### 12.7. Other adverse effects

Other adverse effects : No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

## SECTION 14: Transport information

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

### 14.1. UN number or ID number

UN-No. (ADR) : UN 1139
UN-No. (IMDG) : UN 1139
UN-No. (IATA) : UN 1139
UN-No. (ADN) : UN 1139
UN-No. (RID) : UN 1139

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : COATING SOLUTION
Proper Shipping Name (IMDG) : COATING SOLUTION
Proper Shipping Name (IATA) : Coating solution
Proper Shipping Name (ADN) : COATING SOLUTION
Proper Shipping Name (RID) : COATING SOLUTION
Transport document description (IMDG) : UN 1139 COATING SOLUTION, 3, II
Transport document description (IATA) : UN 1139 Coating solution, 3, II
Transport document description (ADN) : UN 1139 COATING SOLUTION, 3, II
Transport document description (RID) : UN 1139 COATING SOLUTION, 3, II

### 14.3. Transport hazard class(es)

**ADR**

Transport hazard class(es) (IMDG) : 3
Hazard labels (IMDG) : 3

:


**IMDG**

Transport hazard class(es) (IMDG) : 3

Hazard labels (IMDG) : 3

:


**IATA**

Transport hazard class(es) (IATA) : 3

Hazard labels (IATA) : 3

:


**ADN**

Transport hazard class(es) (ADN) : 3

Hazard labels (ADN) : 3

:


**RID**

Transport hazard class(es) (RID) : 3

Hazard labels (RID) : 3

:


## 14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : II

Packing group (RID) : II

## 14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

## 14.6. Special precautions for user

**Overland transport**

Overland transport

Classification code (ADR) : F1

Special provisions (ADR) : 640C

Limited quantities (ADR) : 5l

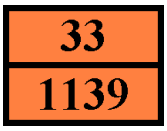
Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001

Mixed packing provisions (ADR) : MP19

Portable tank and bulk container instructions (ADR) : T4

Portable tank and bulk container special provisions (ADR) : TP1, TP8

| | | |
|---|---|---|
| Tank code (ADR) | : | L1.5BN |
| Vehicle for tank carriage | : | FL |
| Transport category (ADR) | : | 2 |
| Special provisions for carriage - Operation (ADR) | : | S2, S20 |
| Hazard identification number (Kemler No.) | : | 33 |
| Orange plates | : |  |
| Tunnel restriction code (ADR) | : | D/E |
| EAC code | : | •3YE |

**Transport by sea (IMDG)**

| | | |
|---|---|---|
| Limited quantities (IMDG) | : | 5 L |
| Excepted quantities (IMDG) | : | E2 |
| Packing instructions (IMDG) | : | P001 |
| IBC packing instructions (IMDG) | : | IBC02 |
| Tank instructions (IMDG) | : | T4 |
| Tank special provisions (IMDG) | : | TP1, TP8 |
| EmS-No. (Fire) | : | F-E |
| EmS-No. (Spillage) | : | S-E |
| Stowage category (IMDG) | : | B |

**Air transport (IATA)**

| | | |
|---|---|---|
| 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 provision (IATA) | : | A3 |
| ERG code (IATA) | : | 3L |

**Inland waterway transport**

| | | |
|---|---|---|
| Classification code (ADN) | : | F1 |
| Special provision (ADN) | : | 640D |
| Limited quantities (ADN) | : | 5 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 provision (RID) | : | 640D |
| Limited quantities (RID) | : | 5L |
| Excepted quantities (RID) | : | E2 |
| Packing instructions (RID) | : | P001, IBC02, R001 |
| Mixed packing provisions (RID) | : | MP19 |
| Portable tank and bulk container instructions (RID) | : | T4 |
| Portable tank and bulk container special provisions (RID) | : | TP1, TP8 |
| Tank codes for RID tanks (RID) | : | LGBF |
| Transport category (RID) | : | 2 |
| Colis express (express parcels) (RID) | : | CE7 |
| 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

Contains no REACH substances with Annex XVII restrictions
Contains no REACH candidate substance
Contains no REACH Annex XIV substances.
Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.
Contains no substance(s) subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### 15.1.2. National regulations

All chemical substances in this product are listed as “Active” in the EPA (Environmental Protection Agency) “TSCA Inventory Notification (Active-Inactive) Requirements Rule” (“the Final Rule”) of Feb. 2019, as amended Feb. 2021, or are otherwise exempt or regulated by other agencies such as FDA or FIFRA

**Germany**

| | | |
|---|---|---|
| Water hazard class (WGK) | : | WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1) |
| Hazardous Incident Ordinance (12. BImSchV) | : | Is not subject to the Hazardous Incident Ordinance (12. BImSchV) |

**Netherlands**

| | | |
|---|---|---|
| SZW-lijst van kankerverwekkende stoffen | : | Benzene,Cumene,Vinyl chloride are listed |
| SZW-lijst van mutagene stoffen | : | Benzene is listed |
| SZW-lijst van reprotoxische stoffen – Borstvoeding | : | None of the components are listed |
| SZW-lijst van reprotoxische stoffen – Vruchtbaarheid | : | None of the components are listed |
| SZW-lijst van reprotoxische stoffen – Ontwikkeling | : | Methyl alcohol,Toluene,Xylene are listed |

**Denmark**

| | | |
|---|---|---|
| Class for fire hazard | : | Class I-1 |
| Store unit | : | 1 Liter |
| Classification remarks | : | F <Flam. Liq. 2>; Emergency management guidelines for the storage of flammable liquids must be followed |
| Danish National Regulations | : | Young people below the age of 18 years are not allowed to use the product<br>Pregnant/breastfeeding women working with the product must not be in direct contact with the product<br>The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal |

**Switzerland**

| | | |
|---|---|---|
| Storage class (LK) | : | LK 3 - Flammable liquids |

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

| Full text of H- and EUH-phrases | |
|---|---|
| Asp. Tox. 1 | Aspiration hazard Category 1 |
| Carc. 2 | Carcinogenicity Category 2 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Flam. Liq. 2 | Flammable liquids Category 2 |
| Flam. Liq. 3 | Flammable liquids Category 3 |
| 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 |

| Full text of H- and EUH-phrases | |
|---|---|
| STOT SE 3 | Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation |
| H225 | Highly flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H330 | Fatal if inhaled. |
| H336 | May cause drowsiness or dizziness. |
| H350 | May cause cancer. |
| H351 | Suspected of causing cancer. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |

| Abbreviations and acronyms | |
|---|---|
| ACGIH | American Conference of Government 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 |
| CAS-No. | Chemical Abstract Service number |
| CLP | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 |
| DNEL | Derived-No Effect Level |
| EC50 | Median effective concentration |
| EC-No. | European Community number |
| ED | Endocrine disrupting properties |
| EN | European Standard |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| LD50 | Median lethal dose |
| OEL | Occupational Exposure Limit |
| OSHA | Occupational Safety and Health Administration |
| 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 |
| STOT | Specific target organ toxicity |
| TRGS | Technical Rules for Hazardous Substances |
| vPvB | Very Persistent and Very Bioaccumulative |
| WGK | Water Hazard Class |

| | | |
|---|---|---|
| Data sources | : | Globally Harmonized System of Classification and Labelling of Chemicals (GHS).<br>Classification for the USA in accordance with 29 CFR 1910.1200 (2012).<br>Classification for the EU in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.<br>ECHA (European Chemicals Agency). |
| Training advice | : | Normal use of this product shall imply use in accordance with the instructions for use and corresponding product packaging. |

Indication of changes:

Revision 1.0: New SDS Created.

Other information : Author: WJS


SDS prepared for Plasti Dip International, Inc. by:
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| Classification according to Regulation (EC) No. 1272/2008 | Classification procedure |
|---|---|
| Flammable liquids, Category 2 | Test Data |
| Skin corrosion/irritation, Category 2 | Specific concentration limit |
| Serious eye damage/eye irritation, Category 2 | Specific concentration limit |
| Carcinogenicty, Category 2 | Specific concentration limit |
| Reproductive toxicity, Category 2 | Specific concentration limit |
| Specific target organ toxicity – Single exposure, Category 3, Narcosis | Specific concentration limit |
| Specific target organ toxicity – Repeated exposure, Category 2 | Specific concentration limit |

Safety Data Sheet (SDS), EU

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 not therefore be construed as guaranteeing any specific property of the product.