F-715 PLASTISEAM®

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 11/9/2009 Revision date: 9/26/2024 Supersedes version of: 3/4/2015 Version: 3.0

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

1.1. Product identifier

Product form : Mixture
Product name : F-715 PLASTISEAM®
Product code : 80109
Product group : Trade product
UFI : Add 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
Info needed

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
Info needed

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 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
Contains : Toluene; Propylene glycol monomethyl ether; Xylene; Ethylbenzene

Hazard statements (CLP)	:	H225 - Highly flammable liquid and vapour. H304 - May be fatal if swallowed and enters airways. H315 - Causes skin irritation. H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness. 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.
Precautionary statements (CLP)	:	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P370+P378 - In case of fire: Use media other than water to extinguish. 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 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]
Toluene	CAS-No.: 108-88-3 EC-No.: 203-625-9 EC Index-No.: 601-021-00-3	30 – 60	Flam. Liq. 2, H225 Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304
Propylene glycol monomethyl ether	CAS-No.: 107-98-2 EC-No.: 203-539-1 EC Index-No.: 603-064-00-3	15 – 40	Flam. Liq. 3, H226 STOT SE 3, H336
Xylene	CAS-No.: 1330-20-7 EC-No.: 215-535-7 EC Index-No.: 601-022-00-9	3 – 7	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315
Ethylbenzene	CAS-No.: 100-41-4 EC-No.: 202-849-4 EC Index-No.: 601-023-00-4	1 – 5	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Asp. Tox. 1, H304 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 serious eye irritation. May cause skin irritation. May cause drowsiness or dizziness. Suspected of damaging fertility or the unborn child. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

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

Symptoms/effects after skin contact : May cause 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. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

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 : Exclude sources of ignition and ventilate the area. 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. Avoid contact with skin and eyes. Use only in well-ventilated areas. Do not breathe mist, vapors. 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)

Coating.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

Propylene glycol monomethyl ether (107-98-2)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	375 mg/m³
IOEL TWA [ppm]	100 ppm
IOEL STEL	568 mg/m³

Propylene glycol monomethyl ether (107-98-2)	
IOEL STEL [ppm]	150 ppm
Notes	Possibility of significant uptake through the skin
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	187 mg/m³
MAK (OEL TWA) [ppm]	50 ppm
MAK (OEL STEL)	187 mg/m³
MAK (OEL STEL) [ppm]	50 ppm
OEL C	187 mg/m³
OEL C	50 ppm
Chemical category	skin notation
Belgium - Occupational Exposure Limits	
OEL TWA	184 mg/m³
OEL TWA	50 ppm
OEL STEL	369 mg/m³
OEL STEL	100 ppm
Chemical category	Skin, skin notation
Bulgaria - Occupational Exposure Limits	
OEL TWA	375 mg/m³
OEL TWA	100 ppm
OEL STEL	568 mg/m³
OEL STEL	150 ppm
Croatia - Occupational Exposure Limits	
GVI (OEL TWA) [1]	375 mg/m³
GVI (OEL TWA) [2]	100 ppm
KGVI (OEL STEL)	568 mg/m³
KGVI (OEL STEL) [ppm]	150 ppm
Cyprus - Occupational Exposure Limits	
OEL TWA	375 mg/m³
OEL TWA	100 ppm
OEL STEL	568 mg/m³
OEL STEL	150 ppm
Chemical category	Skin-potential for cutaneous absorption
Czech Republic - Occupational Exposure Limits	
PEL (OEL TWA)	270 mg/m³
Chemical category	Potential for cutaneous absorption
Denmark - Occupational Exposure Limits	
OEL TWA [1]	185 mg/m³
OEL TWA [2]	50 ppm
OEL STEL	568 mg/m³

Propylene glycol monomethyl ether (107-98-2)	
OEL STEL	150 ppm
Chemical category	Potential for cutaneous absorption
Estonia - Occupational Exposure Limits	
OEL TWA	375 mg/m³
OEL TWA	100 ppm
OEL STEL	568 mg/m³
OEL STEL	150 ppm
Chemical category	skin notation, Sensitizer
Finland - Occupational Exposure Limits	
HTP (OEL TWA) [1]	370 mg/m³
HTP (OEL TWA) [2]	100 ppm
HTP (OEL STEL)	560 mg/m³
HTP (OEL STEL) [ppm]	150 ppm
Chemical category	Potential for cutaneous absorption
France - Occupational Exposure Limits	
VME (OEL TWA)	188 mg/m³ (restrictive limit)
VME (OEL TWA) [ppm]	50 ppm (restrictive limit)
VLE (OEL C/STEL)	375 mg/m³ (restrictive limit)
VLE (OEL C/STEL) [ppm]	100 ppm (restrictive limit)
Chemical category	Risk of cutaneous absorption
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	370 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]	100 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	15 mg/l Parameter: 1-Methoxypropan-2-ol - Medium: urine - Sampling time: end of shift
Gibraltar - Occupational Exposure Limits	
OEL TWA	375 mg/m³
OEL TWA	100 ppm
OEL STEL	568 mg/m³
OEL STEL	150 ppm
Chemical category	skin notation
Greece - Occupational Exposure Limits	
OEL TWA	360 mg/m³
OEL TWA	100 ppm
OEL STEL	1080 mg/m³
OEL STEL	300 ppm
Chemical category	skin - potential for cutaneous absorption

Propylene glycol monomethyl ether (107-98-2)	
Hungary - Occupational Exposure Limits	
AK (OEL TWA)	375 mg/m³
CK (OEL STEL)	568 mg/m³
Chemical category	Potential for cutaneous absorption
Ireland - Occupational Exposure Limits	
OEL TWA [1]	375 mg/m³
OEL TWA [2]	100 ppm
OEL STEL	568 mg/m³
OEL STEL	150 ppm
Italy - Occupational Exposure Limits	
OEL TWA	375 mg/m³
OEL TWA	100 ppm
OEL STEL	568 mg/m³
OEL STEL	150 ppm
Chemical category	skin - potential for cutaneous absorption
Latvia - Occupational Exposure Limits	
OEL TWA	375 mg/m³
OEL TWA	100 ppm
Chemical category	skin - potential for cutaneous exposure
Lithuania - Occupational Exposure Limits	
IPRV (OEL TWA)	190 mg/m³
IPRV (OEL TWA) [ppm]	50 ppm
TPRV (OEL STEL)	300 mg/m³
TPRV (OEL STEL) [ppm]	75 ppm
Chemical category	skin notation
Luxembourg - Occupational Exposure Limits	
OEL TWA	375 mg/m³
OEL TWA	100 ppm
OEL STEL	568 mg/m³
OEL STEL	150 ppm
Chemical category	Possibility of significant uptake through the skin
Malta - Occupational Exposure Limits	
OEL TWA	375 mg/m³
OEL TWA	100 ppm
OEL STEL	568 mg/m³
OEL STEL	150 ppm
Chemical category	Possibility of significant uptake through the skin
Netherlands - Occupational Exposure Limits	
TGG-8u (OEL TWA)	375 mg/m³

Propylene glycol monomethyl ether (107-98-2)	
TGG-8u (OEL TWA) [ppm]	100 ppm
TGG-15min (OEL STEL)	563 mg/m³
TGG-15min (OEL STEL) [ppm]	150 ppm
MAC chemical category	skin notation
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	180 mg/m³
NDSCh (OEL STEL)	360 mg/m³
Portugal - Occupational Exposure Limits	
OEL TWA	375 mg/m³ (indicative limit value)
OEL TWA	100 ppm (indicative limit value)
OEL STEL	568 mg/m³ (indicative limit value)
OEL STEL	150 ppm (indicative limit value)
Romania - Occupational Exposure Limits	
OEL TWA	375 mg/m³
OEL TWA	100 ppm
OEL STEL	568 mg/m³
OEL STEL	150 ppm
Chemical category	skin notation
Slovakia - Occupational Exposure Limits	
NPHV (OEL TWA) [1]	375 mg/m³
NPHV (OEL TWA) [2]	100 ppm
NPHV (OEL C)	568 mg/m³
Chemical category	Potential for cutaneous absorption
Slovenia - Occupational Exposure Limits	
OEL TWA	375 mg/m³
OEL TWA	100 ppm
OEL STEL	568 mg/m³
OEL STEL	150 ppm
Chemical category	Potential for cutaneous absorption
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [1]	375 mg/m³ (indicative limit value)
VLA-ED (OEL TWA) [2]	100 ppm (indicative limit value)
VLA-EC (OEL STEL)	568 mg/m³
VLA-EC (OEL STEL) [ppm]	150 ppm
Chemical category	skin - potential for cutaneous absorption
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	190 mg/m³
NGV (OEL TWA) [ppm]	50 ppm
KGV (OEL STEL)	568 mg/m³

Propylene glycol monomethyl ether (107-98-2)	
KGV (OEL STEL) [ppm]	150 ppm
Chemical category	skin notation
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	375 mg/m³
WEL TWA (OEL TWA) [2]	100 ppm
WEL STEL (OEL STEL)	560 mg/m³
WEL STEL (OEL STEL) [ppm]	150 ppm
WEL chemical category	Potential for cutaneous absorption
Norway - Occupational Exposure Limits	
Grenseverdi (OEL TWA) [1]	180 mg/m³
Grenseverdi (OEL TWA) [2]	50 ppm
Korttidsverdi (OEL STEL)	225 mg/m³ (value calculated)
Korttidsverdi (OEL STEL) [ppm]	75 ppm (value calculated)
Chemical category	skin notation
Switzerland - Occupational Exposure Limits	
MAK (OEL TWA) [1]	360 mg/m³
MAK (OEL TWA) [2]	100 ppm
KZGW (OEL STEL)	720 mg/m³
KZGW (OEL STEL) [ppm]	200 ppm
Switzerland - Biological limit values	
BAT (BLV)	20 mg/l Parameter: 1-Methoxypropanol-2 - Medium: urine - Sampling time: end of shift 221.9 µmol/l Parameter: 1-Methoxypropanol-2 - Medium: urine - Sampling time: end of shift
Turkey - Occupational Exposure Limits	
OEL TWA	375 mg/m³
OEL TWA	100 ppm
OEL STEL	568 mg/m³
OEL STEL	150 ppm
Chemical category	skin notation
USA - ACGIH - Occupational Exposure Limits	
Local name	1-Methoxy-2-propanol
ACGIH OEL TWA [ppm]	100 ppm
ACGIH OEL STEL [ppm]	150 ppm
Remark (ACGIH)	TLV® Basis: Eye & URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
ACGIH chemical category	Not Classifiable as a Human Carcinogen
Regulatory reference	ACGIH 2023

Xylene (1330-20-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	221 mg/m³

Xylene (1330-20-7)	
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
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

Xylene (1330-20-7)	
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
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

Xylene (1330-20-7)	
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
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

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

Ethylbenzene (100-41-4)	
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 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
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 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

Ethylbenzene (100-41-4)	
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)
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

Ethylbenzene (100-41-4)	
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
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

Ethylbenzene (100-41-4)	
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
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) 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

Ethylbenzene (100-41-4)	
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
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

Ethylbenzene (100-41-4)	
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

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

Toluene (108-88-3)	
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
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 20 ppm Medium: final exhaled air - Sampling time: during exposure 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) 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) 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.) 1.5 mg/g Kreatinin Parameter: o-Cresol - Medium: urine - Sampling time: end of shift (after hydrolysis) 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

Toluene (108-88-3)	
Estonia - 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
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)) 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 75 µg/l Parameter: Toluene - Medium: urine - Sampling time: end of shift 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 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

Toluene (108-88-3)	
OEL TWA	50 ppm
OEL STEL	384 mg/m³
OEL STEL	100 ppm
Chemical category	skin notation
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 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

Toluene (108-88-3)	
Luxembourg - 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
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 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

Toluene (108-88-3)	
Chemical category	Potential for cutaneous absorption
Slovakia - Biological limit values	
BLV	600 µg/l Parameter: Toluene - Medium: blood - Sampling time: end of exposure or work shift 1.5 mg/l Parameter: o-Cresol - Medium: urine - Sampling time: after all work shifts (for long-term exposure) 1.5 mg/l Parameter: o-Cresol - Medium: urine - Sampling time: end of exposure or work shift 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 0.05 mg/l Parameter: Toluene - Medium: blood - Sampling time: start of last shift of workweek 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

Toluene (108-88-3)	
Korttidsverdi (OEL STEL)	141 mg/m³ (value calculated)
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 6.48 µmol/l Parameter: Toluene - Medium: whole blood - Sampling time: end of shift 2 g/g Kreatinin Parameter: Hippuric acid - Medium: urine - Sampling time: end of shift, and after several shifts (for long-term exposures) Parameter: Hippuric acid - Medium: urine - Sampling time: end of shift, and after several shifts (for long-term exposures) 0.5 mg/l Parameter: o-Cresol - Medium: urine - Sampling time: end of shift, and after several shifts (for long-term exposures) 4.62 µmol/l Parameter: o-Cresol - Medium: urine - Sampling time: end of shift, and after several shifts (for long-term exposures) 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. 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 0.03 mg/l Parameter: Toluene - Medium: urine - Sampling time: end of shift 0.3 mg/g Kreatinin Parameter: o-Cresol with hydrolysis - Medium: urine - Sampling time: end of shift (background)
Regulatory reference	ACGIH 2024

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. Wear chemically impervious apron over labcoat and full coverage 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 vapors, 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	:	mild. 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	:	4 °C (39.2 °F) (Toluene value)
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	Not available
Solubility	:	Insoluble in water.
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

VOC content : 88 % (6.65 VOC LBS./GAL)

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. Bases. 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

Propylene glycol monomethyl ether (107-98-2)	
LD50 oral rat	5200 mg/kg
LD50 oral	4016 mg/kg body weight
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: EU Method B.3 (Acute Toxicity (Dermal))
LD50 dermal rabbit	13000 mg/kg
LC50 Inhalation - Rat	54.6 mg/l/4h
LC50 Inhalation - Rat [ppm]	> 7559 ppm (Exposure time: 6 h Source: OECD_SIDS)

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

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

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

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

Reproductive toxicity : Suspected of damaging fertility or the unborn child.
STOT-single exposure : May cause drowsiness or dizziness.
STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Propylene glycol monomethyl ether (107-98-2)	
LOAEL (oral,rat,90 days)	2757 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
NOAEL (oral,rat,90 days)	919 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)

Propylene glycol monomethyl ether (107-98-2)	
NOAEL (dermal,rat/rabbit,90 days)	> 1000 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

Xylene (1330-20-7)	
LOAEL (oral,rat,90 days)	150 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)

Ethylbenzene (100-41-4)	
NOAEL (oral,rat,90 days)	75 mg/kg body weight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Toluene (108-88-3)	
LOAEL (oral,rat,90 days)	1250 mg/kg body weight Animal: rat, Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral,rat,90 days)	625 mg/kg body weight Animal: rat, Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation,rat,vapour,90 days)	2.355 mg/l air Animal: rat, Guideline: EU Method B.29 (Sub-Chronic Inhalation Toxicity:90-Day Study)
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 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 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

Propylene glycol monomethyl ether (107-98-2)	
LC50 - Fish [1]	20.8 g/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: IUCLID)
EC50 - Crustacea [1]	23300 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Other aquatic organisms [1]	2954 mg/l Test organisms (species): other aquatic crustacea:
EC50 72h - Algae [1]	> 500 mg/l Source: ECHA

Xylene (1330-20-7)	
LC50 - Fish [1]	2.6 mg/l Source: ECHA
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia
LOEC (chronic)	3.16 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'

Ethylbenzene (100-41-4)	
LC50 - Fish [1]	5.1 mg/l Source: ECHA
LC50 - Fish [2]	4.2 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static] Source: EPA)
EC50 - Crustacea [1]	1.8 – 2.4 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	4.6 mg/l (Species: Pseudokirchneriella subcapitata)
EC50 72h - Algae [2]	2.6 – 11.3 mg/l (Species: Pseudokirchneriella subcapitata [static])
EC50 96h - Algae [1]	2.6 mg/l Source: ECHA
EC50 96h - Algae [2]	1.7 – 7.6 mg/l (Species: Pseudokirchneriella subcapitata [static])
LOEC (chronic)	1.7 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC (chronic)	0.96 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'

Toluene (108-88-3)	
LC50 - Fish [1]	15.22 – 19.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)
LC50 - Fish [2]	12.6 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)
EC50 - Crustacea [1]	5.46 – 9.83 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 - Crustacea [2]	11.5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	12.5 mg/l (Species: Pseudokirchneriella subcapitata [static])
EC50 96h - Algae [1]	> 433 mg/l (Species: Pseudokirchneriella subcapitata)
LOEC (chronic)	2.76 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC (chronic)	0.74 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC chronic fish	1.39 mg/l Test organisms (species): Oncorhynchus kisutch Duration: '40 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

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 %

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 (ADR) : UN 1139 COATING SOLUTION, 3, II, (D/E)
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) (ADR) : 3
Hazard labels (ADR) : 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

Classification code (ADR) : F1

Special provision (ADR) : 640D

Limited quantities (ADR) : 5l

Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001, IBC02, R001

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) : LGBF

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 : •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
Properties and observations (IMDG)	:	Miscibility with water depends upon the composition.

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 substance(s) listed on REACH Annex XVII (Restriction Conditions)
Contains no substance(s) listed on the REACH Candidate List
Contains no substance(s) listed on REACH Annex XIV (Authorisation List)
Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)
Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

VOC content : 88 % (6.65 VOC LBS./GAL)

15.1.2. National regulations

All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory or are exempt.
All chemical substances in this product are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL) or are exempt

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 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 : Xylene,Toluene 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
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
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	
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Carc. 1B	Carcinogenicity Category 1B
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Muta. 1B	Germ cell mutagenicity Category 1B
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
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, Narcosis
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
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). Classification for the USA in accordance with 29 CFR 1910.1200 (2012). 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. 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 3.0.

Other information : Author: WJS

SDS prepared for Plasti Dip International, Inc. by:
Pace Analytical Services, Inc.
Product Regulatory Services Group
1800 Elm Street
Minneapolis, MN 55414
United States
612-656-1175
paceSDS@pacelabs.com

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
Carcinoginicity, 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
Aspiration toxicity, Category 1	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.