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

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

1.1. Product identifier

Trade name/designation:

RAVENOL Motobike System Cleaner Shot

Article No.:
1390401

UFI:
X5AP-CJ1G-NJRR-65J3

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

Use of the substance/mixture:
Additive

1.3. Details of the supplier of the safety data sheet

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

Ravensberger Schmierstoffvertrieb GmbH
Produktsicherheit
Jöllenbecker Str. 2
33824 Werther
Germany
Telephone: +49 5203 9719 0
Telefax: +49 5203 9719 40
E-mail: kontakt@ravenol.de
Website: www.ravenol.de

E-mail (competent person): sdb@ravenol.de

1.4. Emergency telephone number

24 hr. emergency phone number, 24h: +49 700 24 112 112 (Contract ID: RAV) / +1 872 5888271 (Contract ID: RAV)

SECTION 2: Hazards identification

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2.1. Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
flammable liquids *(Flam. Liq. 2)*	H225: Highly flammable liquid and vapour.	On basis of test data.
Aspiration hazard *(Asp. Tox. 1)*	H304: May be fatal if swallowed and enters airways.	On basis of test data.
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	Calculation method.
Serious eye damage/eye irritation *(Eye Dam. 1)*	H318: Causes serious eye damage.	Calculation method.
Acute toxicity (inhalative) *(Acute Tox. 4)*	H332: Harmful if inhaled.	Calculation method.
STOT-single exposure *(STOT SE 3)*	H335: May cause respiratory irritation.	Calculation method.
STOT-single exposure *(STOT SE 3)*	H336: May cause drowsiness or dizziness.	Calculation method.
STOT-repeated exposure *(STOT RE 2)*	H373: May cause damage to organs through prolonged or repeated exposure. ()	Calculation method.
Hazardous to the aquatic environment *(Aquatic Chronic 3)*	H412: Harmful to aquatic life with long lasting effects.	Calculation method.

*
2.2. Label elements

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

Hazard pictograms:

GHS02
Flame

GHS05
Corrosion

GHS07
Exclamation mark

GHS08
Health hazard

Signal word: Danger

Hazard components for labelling:

xylene; propan-2-ol; ethylbenzene; Alcohols, C12-13, branched and linear, ethoxylated

Hazard statements for physical hazards	
H225	Highly flammable liquid and vapour.

Hazard statements for health hazards	
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure. ()

Hazard statements for environmental hazards	
H412	Harmful to aquatic life with long lasting effects.

Supplemental hazard information: none

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

Precautionary statements Prevention	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves and eye/face protection.

Precautionary statements Response	
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/Emergency telephone number.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331	Do NOT induce vomiting.

Precautionary statements Storage	
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary statements Disposal	
P501	Dispose of contents/container to an appropriate recycling or disposal facility.

*
2.3. Other hazards

Other adverse effects:

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

SECTION 3: Composition/information on ingredients

* 3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 1330-20-7 EC No.: 215-535-7 Index No.: 601-022-00-9 REACH No.: 01-2119488216-32	**xylene** Acute Tox. 4 (H312, H332), Asp. Tox. 1 (H304), Eye Irrit. 2 (H319), Flam. Liq. 3 (H226), STOT RE 2 (H373), STOT SE 3 (H335), Skin Irrit. 2 (H315) Danger	20 – < 40 weight-%
CAS No.: 67-63-0 EC No.: 200-661-7 Index No.: 603-117-00-0 REACH No.: 01-2119457558-25	**propan-2-ol** Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H336) Danger	10 – < 20 weight-%
CAS No.: 67-64-1 EC No.: 200-662-2 Index No.: 606-001-00-8 REACH No.: 01-2119471330-49	**acetone** Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H336) Danger EUH066	10 – < 20 weight-%
CAS No.: 64742-48-9 EC No.: 265-150-3 REACH No.: 01-2119457273-39	**Naphtha (petroleum), hydrotreated heavy** Asp. Tox. 1 (H304), Flam. Liq. 3 (H226), STOT SE 3 (H336) Danger	1 – < 10 weight-%
CAS No.: 64742-47-8 EC No.: 920-134-1 REACH No.: 01-2119480153-44	**Hydrocarbons, C9-C11, iso-alkanes, cycloalkanes, <2% aromatics** Aquatic Chronic 2 (H411), Asp. Tox. 1 (H304), Flam. Liq. 3 (H226), STOT SE 3 (H336) Danger	1 – < 10 weight-%
CAS No.: 100-41-4 EC No.: 202-849-4 Index No.: 601-023-00-4	**ethylbenzene** Acute Tox. 4 (H332), Asp. Tox. 1 (H304), Flam. Liq. 2 (H225), STOT RE 2 (H373) Danger	1 – < 10 weight-%
CAS No.: 160901-19-9 EC No.: 931-954-4	**Alcohols, C12-13, branched and linear, ethoxylated** Acute Tox. 4 (H302), Aquatic Chronic 3 (H412), Eye Dam. 1 (H318) Danger	1 – < 10 weight-%
CAS No.: 108-88-3 EC No.: 203-625-9 Index No.: 601-021-00-3 REACH No.: 01-2119471310-51	**toluene** Asp. Tox. 1 (H304), Flam. Liq. 2 (H225), Repr. 2 (H361d***), STOT RE 2 (H373**), STOT SE 3 (H336), Skin Irrit. 2 (H315) Danger	< 0.1 weight-%

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

SECTION 4: First aid measures

* 4.1. Description of first aid measures

General information:

Never give anything by mouth to an unconscious person or a person with cramps. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended.

Following inhalation:

Remove person to fresh air and keep comfortable for breathing. When in doubt or if symptoms are observed, get medical advice.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. When in doubt or if symptoms are observed, get medical advice.

After eye contact:
In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

Following ingestion:
Rinse mouth thoroughly with water. Observe risk of aspiration if vomiting occurs. Call a physician in any case!

Self-protection of the first aider:
Use personal protection equipment. No direct artificial respiration to be given by first aider.

4.2. Most important symptoms and effects, both acute and delayed
Headache, Nausea, Dizziness, fatigue, skin irritation
Frequently or prolonged contact with skin may cause dermal irritation.
May cause skin and eye irritation.
Harmful: may cause lung damage if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically. Call a POISON CENTER. Symptoms can occur only after several hours. Aspiration hazard

SECTION 5: Firefighting measures

* ### 5.1. Extinguishing media
Suitable extinguishing media:
Co-ordinate fire-fighting measures to the fire surroundings.
Carbon dioxide (CO2)
Extinguishing powder
Water mist
alcohol resistant foam

Unsuitable extinguishing media:
Full water jet

* ### 5.2. Special hazards arising from the substance or mixture
Highly flammable. Do not inhale explosion and combustion gases. Danger of suffocation in case of accumulation in lowlying or closed rooms.

Hazardous combustion products:
Nitrogen oxides (NOx) Carbon monoxide Carbon dioxide (CO2)
During heating or in case of fire, toxic gases is possible.

5.3. Advice for firefighters
Do not inhale explosion and combustion gases. Move undamaged containers from immediate hazard area if it can be done safely. In case of fire: Wear self-contained breathing apparatus.

5.4. Additional information
Use water spray jet to protect personnel and to cool endangered containers.
Suppress gases/vapours/mists with water spray jet.
Fire class: B
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

* ### 6.1. Personal precautions, protective equipment and emergency procedures
6.1.1. For non-emergency personnel
Personal precautions:
Use personal protection equipment. Do not breathe mist/vapours/spray.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Avoid contact with eyes and skin.

Protective equipment:
Personal protection equipment: see section 8

Emergency procedures:
Eliminate all ignition sources if safe to do so. Remove persons to safety. Provide adequate ventilation.

6.1.2. For emergency responders
Personal protection equipment:
Use appropriate respiratory protection. Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion. Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow to enter into surface water or drains.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

For containment:

Suitable material for taking up: Sand, Kieselguhr, Universal binder, Chemical binding agents, containing acids
Prevent spread over a wide area (e.g. by containment or oil barriers).

For cleaning up:

Remove from the water surface (e.g. skimming, sucking). Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Other information:

Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

SECTION 7: Handling and storage
SECTION 8: Exposure controls/personal protection
SECTION 13: Disposal considerations

6.5. Additional information

Clear spills immediately. Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Use only in well-ventilated areas. Do not breathe gas/fumes/vapour/spray.
Wear personal protection equipment (refer to section 8).
When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Do not put any product-impregnated cleaning rags into your trouser pockets. Clear spills immediately. Use appropriate container to avoid environmental contamination.

Fire prevent measures:

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge.

Measures to prevent aerosol and dust generation:

See protective measures under point 7 and 8.

Environmental precautions:

Shafts and sewers must be protected from entry of the product.

Advices on general occupational hygiene

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

* 7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed. Keep locked up and out of reach of children. Keep only in original container. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Packaging materials:

Keep/Store only in original container.

Requirements for storage rooms and vessels:

Shafts and sewers must be protected from entry of the product. Floors should be impervious, resistant to liquids and easy to clean.
Keep only in the original container in a cool, well-ventilated place.
Do not store at temperatures above 50°C.
Take precautionary measures against static discharge.

Hints on storage assembly:

TRGS 510
Do not store together with: Oxidising agent, Pyrophoric or self-heating substances, Food and feedingstuffs

Storage class (TRGS 510, Germany): 3 – Flammable liquids

Further information on storage conditions:

Observe technical data sheet. Store in a cool dry place.

7.3. Specific end use(s)

Recommendation:
Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

*

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
BE	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (peut être absorbé par la peau) D
CZ from 1 Mar 2020	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 45.4 ppm (200 mg/m³) ② 90.8 ppm (400 mg/m³) ⑤ (může pronikat pokožkou) B, D, I
NO	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 25 ppm (108 mg/m³) ⑤ (kan absorberes gjennom huden) HE
IE	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (may be absorbed through the skin) Sk, IOELV
HTP (FI)	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (220 mg/m³) ② 100 ppm (440 mg/m³) ⑤ (voivat imeytyä ihon läpi) iho
NPEL (SK) from 1 May 2018	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (rátajte so vstrebávaním cez pokožku) K
MAK (AT) from 25 Sept 2018	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	② 100 ppm (442 mg/m³) ⑤ (max. 4x15 min./Schicht)
DK from 28 Jun 2022	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 25 ppm (109 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (kan optages gennem huden) EH
RO from 21 Aug 2018	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (e de asteptat asimilarea prin piele) P
ES	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (puede ser absorbido a través dérmica) vía dérmica, VLB®, VLI
EE from 17 Jan 2020	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (200 mg/m³) ② 100 ppm (450 mg/m³) ⑤ (naha kaudu kergesti absorbeeruvad ained) A
LV	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (var absorbet caur adu) Āda
Alberta (CA)	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 100 ppm (434 mg/m³) ② 150 ppm (651 mg/m³)
BC (CA)	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 100 ppm ② 150 ppm

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
IOELV (EU)	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (may be absorbed through the skin)
VRC (FR) from 3 May 2021	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (peut être absorbé par la peau)
ACGIH (US) from 1 Jan 2022	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 20 ppm
OSHA (US)	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 100 ppm (435 mg/m³)
SI	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (računati je treba z možnostjo prodiranja skozi kožo) K, BAT, EU1
WEL (GB)	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (220 mg/m³) ② 100 ppm (441 mg/m³) ⑤ (may be absorbed through the skin)
TW	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 100 ppm (434 mg/m³)
KR	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 100 ppm (435 mg/m³) ② 150 ppm (655 mg/m³)
IS	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 25 ppm (109 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (efnið getur auðveldlega borist inn í líkamann gegnum húð) H
CH from 1 Jan 2022	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 100 ppm (435 mg/m³) ② 200 ppm (870 mg/m³) ⑤ (kann über die Haut aufgenommen werden) H B; Tox: OAW ZNS Auge Schwindel; Messmeth: INRS NIOSH
CN from 1 Jan 2007	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 mg/m³ ② 100 mg/m³
MAK (AT) from 25 Sept 2018	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m³)
RU	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 mg/m³ ③ 150 mg/m³
HU	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 221 mg/m³ ② 442 mg/m³ ⑤ (felvehető a bőrön keresztül) b, BEM, R
GR from 1 Oct 2016	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 100 ppm (435 mg/m³) ② 150 ppm (650 mg/m³) ⑤ (αναμένετε απορρόφηση από το δέρμα)
NL	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 210 mg/m³ ② 442 mg/m³ ⑤ (kan door de huid in het lichaam worden opgenomen) H

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
JP from 1 Jan 2017	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (217 mg/m³)
TR	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (cilt yoluyla alınabilir) Deri
MY from 1 Jan 2000	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 199 ppm (434 mg/m³)
SE from 1 Jul 2012	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (kan absorberas genom huden)
HR	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (mora se uzeti u obzir prodiranje kroz kožu) koža
BG	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (трябва да се очаква абсорбиране през кожата)
PL from 12 Jun 2018	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 100 mg/m³ ② 200 mg/m³ ⑤ (może przenikać przez skórę do organizmu) skóra
IDLH (US) from 1 Jan 1994	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 900 ppm
Québec (CA)	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 100 ppm (434 mg/m³) ② 150 ppm (651 mg/m³)
NIOSH (US)	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 100 ppm (435 mg/m³) ② 150 ppm (655 mg/m³)
TRGS 900 (DE) from 2 Oct 2020	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (220 mg/m³) ② 100 ppm (440 mg/m³) ⑤ (kann über die Haut aufgenommen werden) DFG, EU, H
BE from 1 Dec 2011	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (500 mg/m³) ② 400 ppm (1,000 mg/m³)
CZ from 20 May 2021	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (500 mg/m³) ② 400 ppm (1,000 mg/m³) ⑤ I
PL from 12 Jun 2018	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 900 mg/m³ ② 1,200 mg/m³ ⑤ (może przenikać przez skórę do organizmu) skóra
NO	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 100 ppm (245 mg/m³)
IE from 17 Jan 2020	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm ② 400 ppm ⑤ (may be absorbed through the skin) Sk
HTP (FI)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (500 mg/m³) ② 250 ppm (620 mg/m³)

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
LT	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 150 ppm (350 mg/m³) ② 250 ppm (600 mg/m³) ⑤
SE	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 150 ppm (350 mg/m³) ③ 250 ppm (600 mg/m³)
MY from 1 Jan 2000	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 400 ppm (983 mg/m³)
NPEL (SK) from 23 Nov 2011	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (500 mg/m³) ② 400 ppm (1,000 mg/m³)
MAK (AT)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	② 800 ppm (2,000 mg/m³) ⑤ (max. 4x15 min./Schicht)
BG from 17 Jan 2020	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 980 mg/m³ ② 1,225 mg/m³
DK	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (490 mg/m³) ② 400 ppm (980 mg/m³)
HR	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 400 ppm (999 mg/m³) ② 500 ppm (1,250 mg/m³)
CN	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 350 mg/m³ ② 700 mg/m³
RO	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 81 ppm (200 mg/m³) ② 203 ppm (500 mg/m³)
ES from 1 Jan 2011	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (500 mg/m³) ② 400 ppm (1,000 mg/m³) ⑤ VLB®, s
EE	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 150 ppm (350 mg/m³) ② 250 ppm (600 mg/m³)
Alberta (CA)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (492 mg/m³) ② 400 ppm (984 mg/m³)
LV	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 350 mg/m³ ② 600 mg/m³
BC (CA)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm ② 400 ppm
JP	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	③ 400 ppm (980 mg/m³)
VLA (FR)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	② 400 ppm (980 mg/m³)
MAK (AT)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (500 mg/m³)
SI from 4 Oct 2018	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (500 mg/m³) ② 400 ppm (1,000 mg/m³) ⑤ Y, BAT

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
WEL (GB)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 400 ppm (999 mg/m³) ② 500 ppm (1,250 mg/m³)
TW	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 400 ppm (983 mg/m³)
KR	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (480 mg/m³) ② 400 ppm (980 mg/m³)
IS	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (490 mg/m³) ⑤ (efnið getur auðveldlega borist inn í líkamann gegnum húð) H
CH from 1 Jan 2022	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (500 mg/m³) ② 400 ppm (1,000 mg/m³) ⑤ SSC B; Tox: OAW Leber ZNS Auge; Messmeth: INRS NIOSH
HU from 7 Feb 2020	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 500 mg/m³ ② 1,000 mg/m³ ⑤ (felvehető a bőrön keresztül) b, i, R
RU	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 10 mg/m³ ③ 50 mg/m³
GR from 1 Oct 2016	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 400 ppm (980 mg/m³) ② 500 ppm (1,225 mg/m³)
IDLH (US) from 1 Jan 1994	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 2,000 ppm [10% LEL]
Québec (CA) from 1 Apr 2022	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm ② 400 ppm
OSHA (US)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 400 ppm (980 mg/m³)
NIOSH (US)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 400 ppm (980 mg/m³) ② 500 ppm (1,225 mg/m³)
ACGIH (US) from 1 Mar 2014	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (492 mg/m³) ② 400 ppm (984 mg/m³)
TRGS 900 (DE)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (500 mg/m³) ② 400 ppm (1,000 mg/m³) ⑤ DFG, Y
CH from 1 Jan 2022	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,200 mg/m³) ② 1,000 ppm (2,400 mg/m³) ⑤ B; Tox: AW ZNS Auge; Messmeth: NIOSH
MAK (AT)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	② 2,000 ppm (4,800 mg/m³) ⑤ (max. 4x15 min./Schicht)
BE from 1 Jan 2022	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 246 ppm (594 mg/m³) ② 492 ppm (1,187 mg/m³)
CZ from 1 Mar 2020	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 331.2 ppm (800 mg/m³) ② 621 ppm (1,500 mg/m³)

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
PL	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 600 mg/m³ ② 1,800 mg/m³
NO	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 125 ppm (295 mg/m³) ⑤ E
IE	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³) ⑤ IOELV
HTP (FI)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,200 mg/m³) ② 630 ppm (1,500 mg/m³)
LT	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³) ② 1,000 ppm (2,420 mg/m³) ⑤
SE	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 250 ppm (600 mg/m³) ③ 500 ppm (1,200 mg/m³)
NPEL (SK) from 10 Feb 2018	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³)
DK from 28 Jun 2022	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 250 ppm (600 mg/m³) ⑤ E
BG	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 600 mg/m³ ② 1,400 mg/m³
HR from 12 Oct 2018	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³)
RO	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³)
EE	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³)
LV	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³)
Alberta (CA)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,200 mg/m³) ② 750 ppm (1,800 mg/m³)
ES from 1 May 2021	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³) ⑤ VLB®, VLI
BC (CA)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 250 ppm ② 500 ppm
IOELV (EU)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³)
JP from 2 Jan 1900	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 200 ppm (475 mg/m³)
MAK (AT)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,200 mg/m³)

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
VRC (FR)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³) ② 1,000 ppm (2,420 mg/m³)
WEL (GB)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³) ② 1,500 ppm (3,620 mg/m³)
CN	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 300 mg/m³ ② 450 mg/m³
SI from 4 Dec 2018	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³) ② 1,000 ppm (2,420 mg/m³) ⑤ Y, BAT, EU1
TW from 1 Jul 2018	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 200 ppm (475 mg/m³)
KR	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,188 mg/m³) ② 750 ppm (1,782 mg/m³)
IS	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 250 ppm (600 mg/m³)
HU from 7 Feb 2020	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 1,210 mg/m³ ⑤ i, N
RU	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 200 mg/m³ ③ 800 mg/m³
GR from 1 Oct 2016	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 1,780 mg/m³ ② 3,560 mg/m³
NL from 1 Jan 2023	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³) ② 1,000 ppm (2,420 mg/m³)
TR	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³)
IDLH (US) from 1 Jan 1994	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 2,500 ppm
OSHA (US)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 1,000 ppm (2,400 mg/m³)
NIOSH (US)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 250 ppm (590 mg/m³)
ACGIH (US) from 1 Jan 2015	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 250 ppm ② 500 ppm
MY from 1 Jan 2000	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,187 mg/m³)
Québec (CA) from 1 Mar 2013	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,190 mg/m³) ② 1,000 ppm (2,380 mg/m³)
PL	**Naphtha (petroleum), hydrotreated heavy** CAS No.: 64742-48-9 EC No.: 265-150-3	① 300 mg/m³ ② 900 mg/m³

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
TRGS 900 (DE) from 30 Nov 2017	**Naphtha (petroleum), hydrotreated heavy** CAS No.: 64742-48-9 EC No.: 265-150-3	① 300 mg/m³ ② 600 mg/m³ ⑤ (C9-C14 Aliphaten)
VLA (FR)	**Naphtha (petroleum), hydrotreated heavy** CAS No.: 64742-48-9 EC No.: 265-150-3	① 1,000 mg/m³ ② 1,500 mg/m³ ⑤ (hydrocarbures C9-C12)
DFG (DE) from 1 Jul 2019	**Naphtha (petroleum), hydrotreated heavy** CAS No.: 64742-48-9 EC No.: 265-150-3	① 50 ppm (300 mg/m³) ② 100 ppm (600 mg/m³)
NO	**Naphtha (petroleum), hydrotreated heavy** CAS No.: 64742-48-9 EC No.: 265-150-3	① 50 ppm (275 mg/m³) ⑤ (White Spirit (aromatinnhold < 22 %))
CH from 1 Jan 2022	**Naphtha (petroleum), hydrotreated heavy** CAS No.: 64742-48-9 EC No.: 265-150-3	① 50 ppm (300 mg/m³) ② 100 ppm (600 mg/m³) ⑤ Tox: ZNS
MAK (AT)	**Naphtha (petroleum), hydrotreated heavy** CAS No.: 64742-48-9 EC No.: 265-150-3	① 200 mL/m³ ② 400 mL/m³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aromatischen Kohlenwasserstoffen von weniger als 1 %, an n-Hexan von weniger als 5 % und an Cyclo-/ Isohexanen von weniger als 25 %)
MAK (AT)	**Naphtha (petroleum), hydrotreated heavy** CAS No.: 64742-48-9 EC No.: 265-150-3	① 170 mL/m³ ② 340 mL/m³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aromatischen Kohlenwasserstoffen von weniger als 1 %, an n-Hexan von weniger als 5 % und an Cyclo-/ Isohexanen von 25 % oder mehr)
WEL (GB)	**Naphtha (petroleum), hydrotreated heavy** CAS No.: 64742-48-9 EC No.: 265-150-3	① 1,200 mg/m³ ⑤ (> or = C7, Normal and branched chain alkanes)
WEL (GB)	**Naphtha (petroleum), hydrotreated heavy** CAS No.: 64742-48-9 EC No.: 265-150-3	① 800 mg/m³ ⑤ (> or = C7, Cycloalkanes)
SI from 4 Dec 2018	**Naphtha (petroleum), hydrotreated heavy** CAS No.: 64742-48-9 EC No.: 265-150-3	① 700 mg/m³
RO from 21 Aug 2018	**Naphtha (petroleum), hydrotreated heavy** CAS No.: 64742-48-9 EC No.: 265-150-3	① 700 mg/m³ ② 1,000 mg/m³
VLA (FR)	**Hydrocarbons, C9-C11, iso-alkanes, cycloalkanes, <2% aromatics** CAS No.: 64742-47-8 EC No.: 920-134-1	① 1,000 mg/m³ ② 1,500 mg/m³ ⑤ (hydrocarbures C9-C12)
NO	**Hydrocarbons, C9-C11, iso-alkanes, cycloalkanes, <2% aromatics** CAS No.: 64742-47-8 EC No.: 920-134-1	① 50 ppm (275 mg/m³) ⑤ (White Spirit (aromatinnhold < 22 %))

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
MAK (AT)	**Hydrocarbons, C9-C11, iso-alkanes, cycloalkanes, <2% aromatics** CAS No.: 64742-47-8 EC No.: 920-134-1	① 200 mL/m³ ② 400 mL/m³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aromatischen Kohlenwasserstoffen von weniger als 1 %, an n-Hexan von weniger als 5 % und an Cyclo-/ Isohexanen von weniger als 25 %)
MAK (AT)	**Hydrocarbons, C9-C11, iso-alkanes, cycloalkanes, <2% aromatics** CAS No.: 64742-47-8 EC No.: 920-134-1	① 170 mL/m³ ② 340 mL/m³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aromatischen Kohlenwasserstoffen von weniger als 1 %, an n-Hexan von weniger als 5 % und an Cyclo-/ Isohexanen von 25 % oder mehr)
WEL (GB)	**Hydrocarbons, C9-C11, iso-alkanes, cycloalkanes, <2% aromatics** CAS No.: 64742-47-8 EC No.: 920-134-1	① 1,200 mg/m³ ⑤ (> or = C7, Normal and branched chain alkanes)
WEL (GB)	**Hydrocarbons, C9-C11, iso-alkanes, cycloalkanes, <2% aromatics** CAS No.: 64742-47-8 EC No.: 920-134-1	① 800 mg/m³ ⑤ (> or = C7, Cycloalkanes)
RU	**Hydrocarbons, C9-C11, iso-alkanes, cycloalkanes, <2% aromatics** CAS No.: 64742-47-8 EC No.: 920-134-1	① 100 mg/m³ ③ 300 mg/m³
CH from 1 Jan 2022	**Hydrocarbons, C9-C11, iso-alkanes, cycloalkanes, <2% aromatics** CAS No.: 64742-47-8 EC No.: 920-134-1	① 50 ppm (350 mg/m³) ② 100 ppm (700 mg/m³) ⑤ (Dampf) SSC; Tox: ZNS; Messmeth: OSHA
SI from 4 Dec 2018	**Hydrocarbons, C9-C11, iso-alkanes, cycloalkanes, <2% aromatics** CAS No.: 64742-47-8 EC No.: 920-134-1	① 700 mg/m³
RO from 21 Aug 2018	**Hydrocarbons, C9-C11, iso-alkanes, cycloalkanes, <2% aromatics** CAS No.: 64742-47-8 EC No.: 920-134-1	① 700 mg/m³ ② 1,000 mg/m³
CH from 1 Jan 2022	**Hydrocarbons, C9-C11, iso-alkanes, cycloalkanes, <2% aromatics** CAS No.: 64742-47-8 EC No.: 920-134-1	① 5 mg/m³ ⑤ (Aerosol; einatembare Fraktion) SSC; Tox: Lunge
CH from 1 Jan 2022	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 50 ppm (220 mg/m³) ② 50 ppm (220 mg/m³) ⑤ (kann über die Haut aufgenommen werden) H OL B; Tox: Niere Leber; Messmeth: NIOSH
BE from 3 Oct 2018	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 20 ppm (87 mg/m³) ② 125 ppm (551 mg/m³) ⑤ (peut être absorbé par la peau) D
CZ from 1 Mar 2020	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 45.4 ppm (200 mg/m³) ② 113.5 ppm (500 mg/m³) ⑤ (může pronikat pokožkou) D, B
PL from 16 Jun 2009	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 200 mg/m³ ② 400 mg/m³ ⑤ (może przenikać przez skórę do organizmu) skóra
NO	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 5 ppm (20 mg/m³) ⑤ (kan absorberes gjennom huden, Kreftframkallende) HKE

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
TRGS 900 (DE) from 1 Jul 2011	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 20 ppm (88 mg/m³) ② 40 ppm (176 mg/m³) ⑤ (kann über die Haut aufgenommen werden) DFG, H, Y, EU
IE from 4 May 2010	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (442 mg/m³) ② 200 ppm (884 mg/m³) ⑤ (may be absorbed through the skin) Sk, IOELV
MY from 1 Jan 2000	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (434 mg/m³)
HTP (FI)	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 50 ppm (220 mg/m³) ② 200 ppm (880 mg/m³) ⑤ (voivat imeytyä ihon läpi) iho
SE from 1 Jun 2016	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 50 ppm (220 mg/m³) ② 200 ppm (884 mg/m³) ⑤ (kan absorberas genom huden)
NPEL (SK) from 23 Nov 2011	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (442 mg/m³) ② 200 ppm (884 mg/m³) ⑤ (rátajte so vstrebávaním cez pokožku) K
DK	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 50 ppm (217 mg/m³) ② 100 ppm (434 mg/m³) ⑤ (kan optages gennem huden) EHK
LT	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (442 mg/m³) ② 200 ppm (884 mg/m³) ⑤ (tikėtinas įsisavinimas per odą) O
BG	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 435 mg/m³ ② 545 mg/m³ ⑤ (трябва да се очаква абсорбиране през кожата)
MAK (AT)	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (440 mg/m³) ⑤ (kann über die Haut aufgenommen werden) H
HR	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (442 mg/m³) ② 200 ppm (884 mg/m³) ⑤ (mora se uzeti u obzir prodiranje kroz kožu) koža
MAK (AT)	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	② 200 ppm (880 mg/m³) ⑤ (max. 8x5 min./Schicht, Momentanwert, kann über die Haut aufgenommen werden) H
VRC (FR) from 1 Jun 2008	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 20 ppm (88.4 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (peut être absorbé par la peau)
ES	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (441 mg/m³) ② 200 ppm (884 mg/m³) ⑤ (puede ser absorbido a través dérmica) vía dérmica, VLB®, VLI
RO from 21 Aug 2018	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (442 mg/m³) ② 200 ppm (884 mg/m³) ⑤ (e de asteptat asimilarea prin piele) P
EE from 17 Jan 2020	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (442 mg/m³) ② 200 ppm (884 mg/m³) ⑤ (naha kaudu kergesti absorbeeruvad ained) A, S

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
LV	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (442 mg/m³) ② 200 ppm (884 mg/m³) ⑤ (var absorbet caur adu) Āda; Ietekme uz dzirdi
Alberta (CA)	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (434 mg/m³) ② 125 ppm (543 mg/m³)
BC (CA) from 20 Apr 2012	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 20 ppm ⑤ 2B
IOELV (EU)	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (442 mg/m³) ② 200 ppm (884 mg/m³) ⑤ (may be absorbed through the skin)
WEL (GB)	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (441 mg/m³) ② 125 ppm (552 mg/m³) ⑤ (may be absorbed through the skin)
SI	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (442 mg/m³) ② 200 ppm (884 mg/m³) ⑤ (računati je treba z možnostjo prodiranja skozi kožo) K, Y, BAT, EKA, EU1
TW	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (434 mg/m³)
KR	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (435 mg/m³) ② 125 ppm (545 mg/m³)
IS	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 50 ppm (200 mg/m³) ② 200 ppm (884 mg/m³) ⑤ (efnið getur auðveldlega borist inn í líkamann gegnum húð) H
CN from 1 Jan 2007	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 mg/m³ ② 150 mg/m³
HU	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 442 mg/m³ ② 884 mg/m³ ⑤ (felvehető a bőrön keresztül) b, i, BEM, T
RU	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 50 mg/m³ ③ 150 mg/m³
GR from 1 Oct 2016	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (435 mg/m³) ② 125 ppm (545 mg/m³)
NL from 1 Jan 2023	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 48.6 ppm (215 mg/m³) ② 97.3 ppm (430 mg/m³) ⑤ (kan door de huid in het lichaam worden opgenomen) H
TR	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (442 mg/m³) ② 200 ppm (884 mg/m³) ⑤ (cilt yoluyla alınabilir) Deri
JP from 25 May 2020	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 20 ppm (87 mg/m³) ⑤ (##########################)
IDLH (US) from 1 Jan 1994	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 800 ppm [10% LEL]

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
OSHA (US)	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (435 mg/m³)
NIOSH (US)	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 100 ppm (435 mg/m³) ② 125 ppm (545 mg/m³)
ACGIH (US) from 1 Jan 2022	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 20 ppm (87 mg/m³)
Québec (CA) from 1 Apr 2022	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	① 20 ppm
BE from 1 Dec 2011	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 20 ppm (77 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (peut être absorbé par la peau) D
CZ from 1 Mar 2020	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50.112 ppm (192 mg/m³) ② 100.224 ppm (384 mg/m³) ⑤ (může pronikat pokožkou) B, D, I
PL from 12 Jun 2018	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 100 mg/m³ ② 200 mg/m³ ⑤ (może przenikać przez skórę do organizmu) skóra
NO	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 25 ppm (94 mg/m³) ⑤ (kan absorberes gjennom huden) HE
TRGS 900 (DE) from 2 Jul 2021	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (190 mg/m³) ② 100 ppm (380 mg/m³) ⑤ (kann über die Haut aufgenommen werden) DFG, EU, H, Y
IE from 4 May 2010	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (192 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (may be absorbed through the skin) Sk, IOELV
HTP (FI) from 2 Dec 2009	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 25 ppm (81 mg/m³) ② 100 ppm (380 mg/m³) ⑤ (voivat imeytyä ihon läpi) iho, melu
LT from 15 Oct 2007	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (192 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (tikėtinas įsisavinimas per odą, pavojingas reprodukcijai) R O
NPEL (SK) from 23 Nov 2011	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (192 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (rátajte so vstrebávaním cez pokožku) K
MAK (AT)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	② 100 ppm (380 mg/m³) ⑤ (max. 4x15 min./Schicht, kann über die Haut aufgenommen werden) d, H
BG	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (192 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (трябва да се очаква абсорбиране през кожата)
DK from 28 Jun 2022	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 25 ppm (94 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (kan optages gennem huden) EH

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
HR	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (192 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (mora se uzeti u obzir prodiranje kroz kožu) koža
RO from 21 Aug 2018	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (192 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (e de asteptat asimilarea prin piele) P,R2
ES	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (192 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (puede ser absorbido a través dérmica) vía dérmica,VLB®, VLI, r
EE from 17 Jan 2020	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (192 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (naha kaudu kergesti absorbeeruvad ained) A
Alberta (CA) from 1 Dec 2021	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (188 mg/m³) ⑤ (may be absorbed through the skin) 1
LV	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 14 ppm (50 mg/m³) ② 40 ppm (150 mg/m³) ⑤ (var absorbet caur adu) Āda; Ietekme uz dzirdi
BC (CA)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 20 ppm ⑤ R
IOELV (EU)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (192 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (may be absorbed through the skin)
JP	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (188 mg/m³) ⑤ (####################)
VRC (FR) from 9 May 2012	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 20 ppm (76.8 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (peut être absorbé par la peau)
SI	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (192 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (računati je treba z možnostjo prodiranja skozi kožo) K, Y, BAT, EU2
WEL (GB) from 1 Oct 2007	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (191 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (may be absorbed through the skin)
TW	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 100 ppm (376 mg/m³) ⑤ (##########)
MAK (AT)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (190 mg/m³) ⑤ (kann über die Haut aufgenommen werden) d, H
KR	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (188 mg/m³) ② 150 ppm (560 mg/m³)
IS	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 25 ppm (94 mg/m³) ② 50 ppm (188 mg/m³) ⑤ (efnið getur auðveldlega borist inn í líkamann gegnum húð) H

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
CN from 1 Apr 2020	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 mg/m³ ② 100 mg/m³ ⑤ (###############)
RU	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 mg/m³ ③ 150 mg/m³
HU from 25 Jan 2011	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 190 mg/m³ ② 380 mg/m³ ⑤ (felvehető a bőrön keresztül) b, i, BEM, R+T
GR from 1 Oct 2016	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (192 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (αναμένετε απορρόφηση από το δέρμα)
NL from 1 Jan 2023	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 39 ppm (150 mg/m³) ② 100 ppm (384 mg/m³)
CH from 1 Jan 2022	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (190 mg/m³) ② 200 ppm (760 mg/m³) ⑤ (kann über die Haut aufgenommen werden) H R2D R2F SSC OL B; Tox: Sehen ZNS; Messmeth: INRS HSE NIOSH DFG
MY from 1 Jan 2000	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (188 mg/m³) ⑤ (resapan melalui kulit hendaklah diambil kira)
TR	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (192 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (cilt yoluyla alınabilir) Deri
SE from 1 Jul 2012	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (192 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (kan absorberas genom huden)
IDLH (US) from 1 Jan 1994	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 500 ppm
OSHA (US)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 200 ppm ③ 300 ppm ⑤ (Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift: 500 ppm 10 minutes)
NIOSH (US)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 100 ppm (375 mg/m³) ② 150 ppm (560 mg/m³)
ACGIH (US) from 1 Jan 2021	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 20 ppm
Québec (CA) from 1 Apr 2022	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 20 ppm
TRGS 900 (DE)	**Hydrocarbons, TRGS 900**	① 100 mg/m³ ⑤ Mass fraction (wt %): 29.9998

8.1.2. Biological limit values

Limit value type (country of origin)	Substance name	Limit value	① Parameter ② Test material ③ Time of sampling: ④ Remark
BAT (CH) from 1 Jan 2022	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	2 g/L	① Methylhippursäuren ② Urin ③ Expositionsende bzw. Schichtende
VLB (ES) from 1 Jan 2014	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	1 g/g creatinina	① Ácidos metilhipúricos ② orina ③ fin de exposición o fin de turno
OEL-B (JP)	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	800 mg/L	① total (o-,m- ,p-) methylhippuric acid ② # ③ ######### ########## ##
VLBO (RO)	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	3 µg/L	① Acid metilhipuric ② urina ③ finalul expunerii, resp. finalul schimbului
BMH (SK)	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	1.5 mg/L	① Xylén ② krv ③ koniec expozície, príp. koniec zmeny
BMH (SK)	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	2,000 mg/L	① Suma kyselín 2,3,4-metylhippurových ② urín ③ koniec expozície, príp. koniec zmeny
BIO (FI)	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	5 mmol/L	① Virtsan metyylihippuurihappo ② virtsa ③ altistumisen päättyminen, tai vuoron päättyminen
ACGIH-BEI (US)	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	1.5 g/g creatinine	① Methylhippuric acids ② urine ③ end of exposure or end of shift
BAT (SI) from 4 Dec 2018	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	2 g/L	① metilhipurna kislin(vseizomere) ② urin ③ ob koncu delovne izmene
BIO (HU) from 7 Feb 2020	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	1,500 mg/g kreatinin	① Metil-hippursavak ② vizelet ③ expozíció vége illetve műszak vége
TRGS 903 (DE) from 1 Nov 2016	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	2,000 mg/L	① Methylhippur-(Tolur-)säure (alle Isomere) ② Urin ③ Expositionsende bzw. Schichtende
BIO (HR)	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	1.5 mg/L	① ksilen ② krv ③ kraj izloženosti, odnosno kraj smjene
BIO (HR) from 12 Oct 2018	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	1.5 g/g kreatinin	① metilhipurna kiselina ② urin ③ kraj izloženosti, odnosno kraj smjene

Limit value type (country of origin)	Substance name	Limit value	① Parameter ② Test material ③ Time of sampling: ④ Remark
BMGV (GB) from 30 Nov 2022	**xylene** CAS No.: 1330-20-7 EC No.: 215-535-7	650 mmol/mol creatinine	① methyl hippuric acid ② urine ③ end of exposure or end of shift
BAT (CH) from 1 Jan 2011	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	25 mg/L	① Aceton ② Urin ③ Expositionsende bzw. Schichtende
BAT (CH) from 1 Jan 2011	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	25 mg/L	① Aceton ② Blut ③ Expositionsende bzw. Schichtende
VLB (ES)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	40 mg/L	① acetona ② orina ③ en caso de exposición por largo tiempo, fin de exposición o fin de turno
TRGS 903 (DE) from 1 Nov 2012	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	25 mg/L	① Aceton ② Blut ③ Expositionsende bzw. Schichtende
TRGS 903 (DE) from 1 Nov 2012	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	25 mg/L	① Aceton ② Urin ③ Expositionsende bzw. Schichtende
ACGIH-BEI (US)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	40 mg/L	① Acetone in urine ② urine ③ end of shift at end of workweek
VLBO (RO)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	50 mg/L	① Alcohol izopropilic ② urina ③ finalul expunerii, resp. finalul schimbului
BAT (SI) from 4 Dec 2018	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	25 mg/L	① aceton ② kri ③ ob koncu delovne izmene
BAT (SI) from 4 Oct 2018	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	25 mg/L	① aceton ② urin ③ ob koncu delovne izmene
BIO (HU) from 7 Feb 2020	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	25 mg/L	① Aceton ② vizelet ③ expozíció vége illetve műszak vége
BIO (HR)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	50 mg/L	① aceton ② krv ③ kraj izloženosti, odnosno kraj smjene
BIO (HR)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	50 mg/L	① aceton ② urin ③ kraj izloženosti, odnosno kraj smjene
TRGS 903 (DE)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	80 mg/L	① Aceton ② Urin ③ Expositionsende bzw. Schichtende
BAT (CH) from 1 Jan 2023	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	50 mg/L	① Aceton ② Urin ③ Expositionsende bzw. Schichtende

Limit value type (country of origin)	Substance name	Limit value	① Parameter ② Test material ③ Time of sampling: ④ Remark
VLB (ES)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	50 mg/L	① acetona ② orina ③ fin de exposición o fin de turno
OEL-B (JP)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	40 mg/L	① #### ② # ③ ############
VLBO (RO)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	50 mg/L	① acetona ② urina ③ finalul expunerii, resp. finalul schimbului
BMH (SK)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	80 mg/L	① acetón ② urín ③ koniec expozície, príp. koniec zmeny
ACGIH-BEI (US) from 1 Apr 2016	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	25 mg/L	① acetone ② urine ③ end of exposure or end of shift
BIO (HR)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	20 mg/L	① aceton ② krv ③ kraj izloženosti, odnosno kraj smjene
BIO (HR)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	20 mg/g kreatinin	① aceton ② urin ③ kraj izloženosti, odnosno kraj smjene
BAT (SI) from 4 Dec 2018	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	80 mg/L	① aceton ② urin ③ ob koncu delovne izmene
BIO (HU) from 7 Feb 2020	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	80 mg/L	① Aceton ② vizelet ③ expozíció vége illetve műszak vége
BAT (DE) from 1 Jul 2021	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	50 mg/L	① Aceton ② Urin ③ Expositionsende bzw. Schichtende
BIO (BG)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	80 mg/L	① ацетон ② урина ③ край на експозицията, респ. край на работната смяна
TRGS 903 (DE) from 7 Jun 2017	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	250 mg/g Creatinin	① Mandelsäure + Phenylglyoxylsäure ② Urin ③ Expositionsende bzw. Schichtende
BAT (CH) from 1 Jan 2022	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	600 mg/g Creatinin	① Mandelsäure + Phenylglyoxylsäure ② Urin ③ Expositionsende bzw. Schichtende
VLB (ES)	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	700 mg/g creatinina	① Ácido mandélico + ácido fenilglioxílico ② orina ③ en caso de exposición por largo tiempo, fin de exposición o fin de turno

Limit value type (country of origin)	Substance name	Limit value	① Parameter ② Test material ③ Time of sampling: ④ Remark
BIO (HU) from 7 Feb 2020	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	1,500 mg/g kreatinin	① mandulasav ② vizelet ③ a munkahét utolsó műszakának a vége.
BIO (FI) from 1 Oct 2020	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	5.2 mmol/L	① mantelihappo ② virtsa ③ työviikon viimeisen työvuoron päätyttyä
VLBO (RO)	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	1.5 g/g creatinină	① acid mandelic ② urina ③ la expunerea de durata, finalul expunerii, resp. finalul schimbului
BMH (SK)	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	12 mg/L	① 2 - a 4 -Etylfenol ② urín ③ pri dlhodobej expozícií, koniec expozície, príp. koniec zmeny
BMH (SK)	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	1,600 mg/L	① kyselina mandľová + Kyselina 2-fenyl-2-oxooctová ② urín ③ pri dlhodobej expozícií, koniec expozície, príp. koniec zmeny
ACGIH-BEI (US) from 1 Jan 2014	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	0.15 g/g creatinine	① Sum of mandelic acid and phenylglyoxylic acid in urine ② urine ③ end of shift at end of workweek
BIO (HR)	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	1.5 mg/L	① etilbenzen ② krv ③ za vrijeme izloženosti
BIO (HR)	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	1.5 g/g kreatinin	① bademova kiselina ② urin ③ pri dugotrajnom izlaganju, kraj izloženosti, odnosno kraj smjene
BAT (SI) from 4 Dec 2018	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	250 g/g kreatinina	① mandljeva kislina + fenilglioksilna kislina ② urin ③ ob koncu delovne izmene
BIO (BG)	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	2,000 mg/g креатинин	① Бадемова киселина + фенилглиоксилова киселина ② урина ③ край на експозицията, респ. край на работната смяна
OEL-B (JP) from 18 May 2021	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	150 mg/g ## ####	① Mandelic acid ② # ③ ############
OEL-B (JP) from 18 May 2021	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	200 mg/g ## ####	① Mandelic acid + Phenylglyoxylic acid ② # ③ ############
OEL-B (JP) from 18 May 2021	**ethylbenzene** CAS No.: 100-41-4 EC No.: 202-849-4	15 µg/L #### ##	① Ethylbenzene ② # ③ ############

Limit value type (country of origin)	Substance name	Limit value	① Parameter ② Test material ③ Time of sampling: ④ Remark
TRGS 903 (DE) from 1 Nov 2012	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	1.5 mg/L	① o-Kresol ② Urin ③ bei Langzeitexposition, Expositionsende bzw. Schichtende
TRGS 903 (DE) from 13 Jan 2021	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	0.6 mg/L	① Toluol ② Blut ③ unmittelbar nach Exposition
BAT (CH) from 1 Jan 2021	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	75 µg/L	① Toluol ② Urin ③ Expositionsende bzw. Schichtende
BAT (CH)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	0.5 mg/L	① o-Kresol ② Urin ③ bei Langzeitexposition, Expositionsende bzw. Schichtende
VLB (ES) from 1 Jan 2018	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	0.6 mg/g creatinina	① (o-Cresol) ② orina ③ fin de exposición o fin de turno
VLB (ES)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	0.05 mg/L	① (tolueno) ② sangre ③ fin de exposición o fin de turno
BIO (HU)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	1 mg/g kreatinin	① o-Krezol ② vizelet ③ expozíció vége illetve műszak vége
BIO (FI)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	500 nmol/L	① toluoli ② veri ③ ennen seuraavaa vuoroa
OEL-B (JP)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	0.6 mg/L	① #### ② ## ③ ######### ########## ## ④ Within 2h prior to
OEL-B (JP)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	0.06 mg/L	① #### ② # ③ ######### ########## ## ④ Within 2h prior to
VLBO (RO)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	2 g/L	① Acid hipuric o-cresol ② urina ③ finalul expunerii, resp. finalul schimbului
VLBO (RO)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	3 mg/L	① Acid hipuric o-cresol ② urina ③ finalul expunerii, resp. finalul schimbului
BMH (SK)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	600 µg/L	① toulén ② krv ③ koniec expozície, príp. koniec zmeny

Limit value type (country of origin)	Substance name	Limit value	① Parameter ② Test material ③ Time of sampling: ④ Remark
BMH (SK)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	1.5 mg/L	① o-krezol ② urín ③ pri dlhodobej expozícií, koniec expozície, príp. koniec zmeny
BMH (SK)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	2,401 mg/L	① Kyselina hippurová ② urín ③ koniec expozície, príp. koniec zmeny
ACGIH-BEI (US)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	0.02 mg/L	① Toluene in blood ② blood ③ Prior to last shift of workweek
ACGIH-BEI (US)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	0.03 mg/L	① Toluene in urine ② urine ③ end of exposure or end of shift
ACGIH-BEI (US)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	0.3 mg/g creatinine	① o-Cresol in urine ② urine ③ end of exposure or end of shift
BAT (CH)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	2 g/g Creatinin	① Hippursäure ② Urin ③ bei Langzeitexposition, Expositionsende bzw. Schichtende
VLB (ES) from 1 Jan 2018	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	0.08 mg/L	① (tolueno) ② sangre ③ fin de exposición o fin de turno
BAT (SI) from 11 May 2021	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	600 µg/L	① toluen ② kri ③ ob koncu delovne izmene
BAT (SI) from 11 May 2021	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	1.5 mg/L kreatinina	① o-krezol ② urin ③ po več zaporednih delavnikih, ob koncu delovne izmene
TRGS 903 (DE) from 28 Mar 2019	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	75 µg/L	① Toluol ② Urin ③ Expositionsende bzw. Schichtende
BIO (BG)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	1.6 mmol креатинин	① хипурова киселина ② урина ③ край на експозицията, респ. край на работната смяна
BIO (HR)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	1 mg/L	① toluol ② krv ③ kraj izloženosti, odnosno kraj smjene
BIO (HR)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	20 ppm krajnje izdahnuti zrak	① toluol ③ za vrijeme izloženosti
BIO (HR)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	2.5 g/g kreatinin	① hipurna kiselina ② urin ③ kraj izloženosti, odnosno kraj smjene

Limit value type (country of origin)	Substance name	Limit value	① Parameter ② Test material ③ Time of sampling: ④ Remark
BIO (HR)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	1 mg/g kreatinin	① o-krezol ② urin ③ kraj izloženosti, odnosno kraj smjene
BAT (SI) from 11 May 2021	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	75 µg/L	① toluen ② urin ③ ob koncu delovne izmene
BER (LV) from 20 May 2021	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	0.05 mg/L	① tulols ② asinis ③ ekspozīcijas beigas, respektīvi, darba maiņas beigas
BER (LV) from 20 May 2021	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	1.6 g/g vreatinīns	① hipurskābi ② urīns ③ ekspozīcijas beigas, respektīvi, darba maiņas beigas

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
xylene CAS No.: 1330-20-7 EC No.: 215-535-7	77 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
xylene CAS No.: 1330-20-7 EC No.: 215-535-7	14.8 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
xylene CAS No.: 1330-20-7 EC No.: 215-535-7	180 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
xylene CAS No.: 1330-20-7 EC No.: 215-535-7	108 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects
xylene CAS No.: 1330-20-7 EC No.: 215-535-7	1.6 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects
acetone CAS No.: 67-64-1 EC No.: 200-662-2	1,210 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
acetone CAS No.: 67-64-1 EC No.: 200-662-2	200 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
acetone CAS No.: 67-64-1 EC No.: 200-662-2	2,420 mg/m³	① DNEL worker ② Acute - inhalation, systemic effects
acetone CAS No.: 67-64-1 EC No.: 200-662-2	186 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
acetone CAS No.: 67-64-1 EC No.: 200-662-2	62 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects
acetone CAS No.: 67-64-1 EC No.: 200-662-2	62 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects
ethylbenzene CAS No.: 100-41-4 EC No.: 202-849-4	77 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
toluene CAS No.: 108-88-3 EC No.: 203-625-9	192 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects

Substance name	DNEL value	① DNEL type ② Exposure route
toluene CAS No.: 108-88-3 EC No.: 203-625-9	192 mg/m³	① DNEL worker ② Acute - inhalation, local effects

*
8.2. Exposure controls

8.2.1. Appropriate engineering controls
Avoid exposure. Do not breathe gas/fumes/vapour/spray.

8.2.2. Personal protection equipment


Eye/face protection:
During transfer: Eye glasses with side protection
DIN-/EN-Norms EN 166

Skin protection:
Hand protection
Suitable material: Butyl caoutchouc (butyl rubber), CR (polychloroprene, chloroprene rubber)
Thickness of the glove material: ≥ 0,4 mm
Breakthrough time: >480 min
Breakthrough times and swelling properties of the material must be taken into consideration.
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
Tested protective gloves must be worn: EN ISO 374
Suitable protective clothing: Protective clothing, solvent-resistant like: EN 465

Respiratory protection:
Usually no personal respirative protection necessary.
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Filtering device with filter or ventilator filtering device of type: AX

Other protection measures:
Wear suitable protective clothing. Take off immediately all contaminated clothing and wash it before reuse.

8.2.3. Environmental exposure controls
See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

*
9.1. Information on basic physical and chemical properties

Appearance
Physical state: Liquid
Colour: colourless - light yellow
Odour: characteristic

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	*not determined*		
Melting point	*not determined*		
Freezing point	*not determined*		
Initial boiling point and boiling range	56 °C		
Decomposition temperature	*not applicable*		
Flash point	-9 °C		
Evaporation rate	*not determined*		
Auto-ignition temperature	*not determined*		
Upper/lower flammability or explosive limits	0.6 – 14.3 Vol-%		
Vapour pressure	*not determined*		
Vapour density	*not applicable*		
Density	0.82 g/cm³		

Parameter	Value	at °C	① Method ② Remark
Relative density	*not applicable*		
Bulk density	*not applicable*		
Water solubility	practically insoluble		
Partition coefficient: n-octanol/water	*not applicable*		
Dynamic viscosity	*not determined*		
Kinematic viscosity	0.73 mm²/s	40 °C	

* **9.2. Other information**

Not applicable

SECTION 10: Stability and reactivity

* **10.1. Reactivity**

Highly flammable

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

* **10.4. Conditions to avoid**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Vapours can form explosive mixtures with air.

10.5. Incompatible materials

Oxidizing agent, Pyrophoric or self-heating substances
Strong acid
Alkali (lye), concentrated

10.6. Hazardous decomposition products

Hazardous combustion products: Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx)
During heating or in case of fire, toxic gases is possible.
Do not inhale explosion and combustion gases. Danger of suffocation in case of accumulation in lowlying or closed rooms.

Further information

Do not mix with other chemicals.

SECTION 11: Toxicological information

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

xylene CAS No.: 1330-20-7 EC No.: 215-535-7
LD_{50} oral: 4,300 mg/kg (Rat)
LD_{50} dermal: >1,700 mg/kg (Rabbit)
LC_{50} Acute inhalation toxicity (vapour): 11 mg/L 4 h (Rat)
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7
LD_{50} oral: 5,280 mg/kg (Rat)
LD_{50} dermal: >2,000 mg/kg
LC_{50} Acute inhalation toxicity (vapour): 47.5 mg/L 4 h (Rat)
acetone CAS No.: 67-64-1 EC No.: 200-662-2
LD_{50} oral: 5,800 mg/kg (Rat) RTECS
LD_{50} dermal: >15,800 mg/kg (Rabbit) ICLUID
LC_{50} Acute inhalation toxicity (gas): 76 mg/L 4 h (Rat)
LC_{50} Acute inhalation toxicity (vapour): 76 mg/L 4 h (Rat)

Naphtha (petroleum), hydrotreated heavy CAS No.: 64742-48-9 EC No.: 265-150-3	
LD_{50} oral: 15,000 mg/kg (rat)	
LD_{50} dermal: 3,000 mg/kg (rabbit)	
LC_{50} Acute inhalation toxicity (gas): 6.1 mg/L 4 h (rat)	
LC_{50} Acute inhalation toxicity (vapour): >5 mg/L 4 h (Rat) OECD 403	
LC_{50} Acute inhalation toxicity (dust/mist): >5 mg/L 4 h (Rat) OECD 403	
Hydrocarbons, C9-C11, iso-alkanes, cycloalkanes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-134-1	
LD_{50} oral: >5,000 mg/kg (Rat)	
LD_{50} dermal: >5,000 mg/kg (Rabbit)	
LC_{50} Acute inhalation toxicity (vapour): >5 mg/L 4 h (Rat)	
Alcohols, C12-13, branched and linear, ethoxylated CAS No.: 160901-19-9 EC No.: 931-954-4	
LD_{50} oral: 2,000 mg/kg (Ratte)	
LD_{50} dermal: >2,000 mg/kg (Kaninchen)	
toluene CAS No.: 108-88-3 EC No.: 203-625-9	
LD_{50} oral: 5,580 mg/kg (Rat)	
LD_{50} dermal: 12,124 mg/kg (Rabbit)	
LC_{50} Acute inhalation toxicity (vapour): 28.1 mg/L 4 h (Rat)	

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

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

Acute inhalation toxicity:
Harmful if inhaled.

Skin corrosion/irritation:
Causes skin irritation.

Serious eye damage/irritation:
Causes serious eye damage.

Respiratory or skin sensitisation:
Based on available data, the classification criteria are not met.

Germ cell mutagenicity:
No indications of human germ cell mutagenicity exist.

Carcinogenicity:
No indication of human carcinogenicity.

Reproductive toxicity:
No indications of human reproductive toxicity exist.

STOT-single exposure:
May cause respiratory irritation. (Xylene)
May cause drowsiness or dizziness.

STOT-repeated exposure:
May cause damage to organs through prolonged or repeated exposure. (Xylene)

Aspiration hazard:
May be fatal if swallowed and enters airways.
Observe risk of aspiration if vomiting occurs.
For viscosity data, see section 9.

* 11.2. Information on other hazards

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

Other information:
No information available.

SECTION 12: Ecological information

* 12.1. Toxicity

xylene CAS No.: 1330-20-7 EC No.: 215-535-7
LC_{50}: 26.7 mg/L 4 d (fish, Pimephales promelas)
EC_{50}: 3.82 mg/L 2 d (crustaceans, Daphnia magna)
EC_{50}: >3.4 mg/L 2 d (crustaceans, Ceriodaphnia spec) Ecotoxicology and Environmental Safety 3
EC_{50}: 7.6 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout)) OECD 203
NOEC: >1.3 mg/L 56 d (fish, Oncorhynchus mykiss (Rainbow trout)) Appl. Sci. Branch. Eng. Res. Cent. Denve
NOEC: 1.17 mg/L 4 d (crustaceans, Ceriodaphnia spec) Ecotoxicology and Environmental Safety 3
ErC_{50}: 4.9 mg/L 3 d (Algae/water plant, Selenastum capricomutum)
ErC_{50}: 4.7 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata) Ecotoxicology and Environmental Safety
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7
LC_{50}: 9,640 mg/L 4 d (fish, Pimephales promelas)
LC_{50}: >100 mg/L 4 d (fish, Leuciscus idus)
LC_{50}: >1,000 mg/L 4 d (crustaceans, Oncorhynchus mykiss (Rainbow trout))
EC_{50}: >100 mg/L 3 d (Algae/water plant, Desmodesmus subspicatus) OECD 401
EC_{50}: 13,299 mg/L 2 d (Algae/water plant, Daphnia magna)
EC_{50}: 13,299 mg/L 2 d (crustaceans, Daphnia magna)
ErC_{50}: >100 mg/L 3 d (Algae/water plant, Scenedesmus subspicatus)
ErC_{50}: 1,000 mg/L 3 d (Algae/water plant)
acetone CAS No.: 67-64-1 EC No.: 200-662-2
LC_{50}: 5,540 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout))
EC_{50}: 6,100 mg/L 2 d (crustaceans, Daphnia magna (Big water flea))
ErC_{50}: 5,000 mg/L 4 d (Algae/water plant, Desmodesmus subspicatus)
ErC_{50}: >1,000 mg/L 3 d (Pseudokirchneriella subcapitata)
Naphtha (petroleum), hydrotreated heavy CAS No.: 64742-48-9 EC No.: 265-150-3
LC_{50}: 1,000 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout))
LC_{50}: >1,000 mg/L 4 d (Oncorhynchus mykiss (Rainbow trout))
EC_{50}: 1,000 mg/L 2 d (crustaceans, Daphnia magna (Big water flea))
EC_{50}: 1,000 mg/L 2 d (crustaceans, Daphnia magna)
EC_{50}: 1,000 mg/L 2 d (Daphnia magna)
ErC_{50}: 1,000 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata)
ErC_{50}: >1,000 mg/L 3 d (Pseudokirchneriella subcapitata)
ErC_{50}: >1,000 mg/L (Algae/water plant, Pseudokirchneriella subcapitata)
Hydrocarbons, C9-C11, iso-alkanes, cycloalkanes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-134-1
LC_{50}: >1,000 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout))
EC_{50}: 1,000 mg/L 2 d (crustaceans, Daphnia magna (Big water flea))
ErC_{50}: >1,000 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata)
ethylbenzene CAS No.: 100-41-4 EC No.: 202-849-4
ErC_{50}: 3.6 mg/L 4 d (Algae/water plant)
Alcohols, C12-13, branched and linear, ethoxylated CAS No.: 160901-19-9 EC No.: 931-954-4
LC_{50}: >1 – 10 mg/L 4 d (fish, Poecilia reticulata (Guppy)) OECD 203
LC_{50}: >1 – 10 mg/L 4 d (fish, Poecilia reticulata (Guppy)) OECD 203
EC_{50}: >1 – 10 mg/L 2 d (crustaceans, Daphnia magna (Großer Wasserfloh)) OECD 202
EC_{50}: >1 – 10 mg/L 2 d (crustaceans, Daphnia magna (Big water flea)) OECD 202

toluene CAS No.: 108-88-3 EC No.: 203-625-9
LC_{50}: 5.5 – 340 mg/L 4 d (fish)
LC_{50}: 15.5 – 310 mg/L 2 d (crustaceans)
LC_{50}: 13 mg/L 4 d (fish, Carassius auratus (goldfish)) IUCLID
EC_{50}: 6 – 19.6 mg/L 2 d (crustaceans, Daphnia magna (Big water flea))
EC_{50}: 12.5 mg/L 3 d (Algae/water plant)
ErC_{50}: >433 mg/L 4 d (Algae/water plant, Pseudokirchneriella subcapitata) GESTIS
ErC_{50}: 12.5 mg/L 3 d (Algae/water plant)

Aquatic toxicity:
Harmful to aquatic life with long lasting effects.

Additional ecotoxicological information:
Do not allow uncontrolled discharge of product into the environment.

* 12.2. Persistence and degradability

propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7
Biodegradation: Yes, rapidly
Naphtha (petroleum), hydrotreated heavy CAS No.: 64742-48-9 EC No.: 265-150-3
Biodegradation: Yes, rapidly

Abiotic degradation:
The product has not been tested.

Additional information:
The product has not been tested.

* 12.3. Bioaccumulative potential

xylene CAS No.: 1330-20-7 EC No.: 215-535-7
Log K_{OW}: 3.2
Bioconcentration factor (BCF): 8.8 Species: Oncorhynchus mykiss (Rainbow trout)
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7
Log K_{OW}: 0.05
acetone CAS No.: 67-64-1 EC No.: 200-662-2
Log K_{OW}: -0.24
Naphtha (petroleum), hydrotreated heavy CAS No.: 64742-48-9 EC No.: 265-150-3
Log K_{OW}: 4.2
ethylbenzene CAS No.: 100-41-4 EC No.: 202-849-4
Log K_{OW}: 3.15
toluene CAS No.: 108-88-3 EC No.: 203-625-9
Log K_{OW}: 2.73

Partition coefficient: n-octanol/water:
not applicable

Accumulation / Evaluation:
The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

* 12.5. Results of PBT and vPvB assessment

xylene CAS No.: 1330-20-7 EC No.: 215-535-7
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
acetone CAS No.: 67-64-1 EC No.: 200-662-2
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
Naphtha (petroleum), hydrotreated heavy CAS No.: 64742-48-9 EC No.: 265-150-3
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
Hydrocarbons, C9-C11, iso-alkanes, cycloalkanes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-134-1
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

ethylbenzene CAS No.: 100-41-4 EC No.: 202-849-4	
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.	
Alcohols, C12-13, branched and linear, ethoxylated CAS No.: 160901-19-9 EC No.: 931-954-4	
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.	
toluene CAS No.: 108-88-3 EC No.: 203-625-9	
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.	

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

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

12.7. Other adverse effects
No information available.

SECTION 13: Disposal considerations

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

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV
Directive 2008/98/EC (Waste Framework Directive)

HP 3	Flammable
HP 4	Irritant — skin irritation and eye damage
HP 5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP 6	Acute Toxicity

Waste treatment options
Appropriate disposal / Product:
Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:
Non-contaminated packages may be recycled.

Other disposal recommendations:
Consult the appropriate local waste disposal expert about waste disposal.

13.2. Additional information
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or ID number			
UN 1993	UN 1993	UN 1993	UN 1993
14.2. UN proper shipping name			
FLAMMABLE LIQUID, N.O.S. (Isopropanol, Acetone)	FLAMMABLE LIQUID, N.O.S. (Isopropanol, Acetone)	FLAMMABLE LIQUID, N.O.S. (Isopropanol, Acetone)	FLAMMABLE LIQUID, N.O.S. (Isopropanol, Acetone)
14.3. Transport hazard class(es)			
 3	 3	 3	 3
14.4. Packing group			
II	II	II	II
14.5. Environmental hazards			
No	No	No	No

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.6. Special precautions for user			
Limited quantity (LQ): 1 L **Excepted Quantities (EQ):** E2 **Hazard identification number (Kemler No.):** 33 **Classification code:** F1 **Tunnel restriction code:** (D/E)	**Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E2 **Classification code:** F1	**Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E2 **EmS-No.:** F-E; S-E	**Limited quantity (LQ):** 1 L

14.7. Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

SECTION 15: Regulatory information

*

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

15.1.1. EU legislation

Restrictions on use:

Use restriction according to REACH annex XVII, no.: 3, 28, 40, 45, 75

Other regulations (EU):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive], Hazard categories:

• P5c Flammable liquids of Categories 2 or 3, not covered by P5a and P5b

Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).

Volatile organic compounds (VOC) content in percent by weight: 71,835 % w/w

VOC-CH: 549,047 g/l (71,835 % w/w)

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds:

Volatile organic compounds (VOC) content in percent by weight: 71.835 weight-%

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Annex Chemikalien-Verbotsverordnung (ChemVerbotsV)

Not applicable

Störfallverordnung (12. BImschV)

for substances contained in the product:

Hazard categories:

• P5c Flammable liquids of Categories 2 or 3, not covered by P5a and P5b

Technische Anleitung zur Reinhaltung der Luft (TA-Luft)

Remark:

Annex 4: ingredient(s) not named.

To follow: 5.2.5

Water hazard class

WGK:

2 - obviously hazardous to water

Source:

Self-classification (mixture; calculation rule).

Technische Regeln für Gefahrstoffe

TRGS 500

TRGS 510

TRGS 900

Berufsgenossenschaftliche Vorschriften (DGUV-Vorschriften)
To follow: Berufsgenossenschaftliche Informationen (DGUV-Informationen) 868
Berufsgenossenschaftliche Regeln (DGUV-Regeln) 189, 190, 192, 195

[CH] National regulations

Other regulations, restrictions and prohibition regulations
Mengenschwelle (Schweiz - StFV)
Gefahrencode
Brandverhütung, BVD (Schweiz)
Störfallverordnung (StFV)

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

15.3. Additional information
Tactile warning according to EN/ISO 11683. Child-resistant fastenings (EN/862/ISO 8317).

SECTION 16: Other information

* 16.1. Indication of changes

2.1.	Classification of the substance or mixture
2.2.	Label elements
2.3.	Other hazards
3.2.	Mixtures
4.1.	Description of first aid measures
5.1.	Extinguishing media
5.2.	Special hazards arising from the substance or mixture
6.1.	Personal precautions, protective equipment and emergency procedures
7.2.	Conditions for safe storage, including any incompatibilities
8.1.	Control parameters
8.2.	Exposure controls
9.1.	Information on basic physical and chemical properties
9.2.	Other information
10.1.	Reactivity
10.4.	Conditions to avoid
11.1.	Information on hazard classes as defined in Regulation (EC) No 1272/2008
11.2.	Information on other hazards
12.1.	Toxicity
12.2.	Persistence and degradability
12.3.	Bioaccumulative potential
12.5.	Results of PBT and vPvB assessment
13.1.	Waste treatment methods
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture
16.1.	Indication of changes
16.3.	Key literature references and sources for data
16.4.	Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
16.5.	Relevant R-, H- and EUH-phrases (Number and full text)

16.2. Abbreviations and acronyms
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
See overview table at www.euphrac.eu

* 16.3. Key literature references and sources for data
EC 1907/2006 - REACH Regulation
1272/2008 EC - Regulation on classification, labeling and packaging of substances and mixtures, and amending Directives 67/548/EEC and 1999/45/EC and Regulation (EC) No 1907/2006
Regulation (EC) No 1907/2006 (REACH), Annex II
European Chemicals Agency (ECHA), C & L classification and labeling inventory
European Chemicals Agency (ECHA), ECHA CHEM Registered substances
OECD The Global Portal to Information on Chemical Substances (ChemPortal)

Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA): GESTIS substance database and International limit values for chemical substances
Federal Environment Agency, Section IV 2.4: Documentation and Information Centre substances hazardous to water Rigoletto (catalog substances hazardous to water)

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
flammable liquids *(Flam. Liq. 2)*	H225: Highly flammable liquid and vapour.	On basis of test data.
Aspiration hazard *(Asp. Tox. 1)*	H304: May be fatal if swallowed and enters airways.	On basis of test data.
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	Calculation method.
Serious eye damage/eye irritation *(Eye Dam. 1)*	H318: Causes serious eye damage.	Calculation method.
Acute toxicity (inhalative) *(Acute Tox. 4)*	H332: Harmful if inhaled.	Calculation method.
STOT-single exposure *(STOT SE 3)*	H335: May cause respiratory irritation.	Calculation method.
STOT-single exposure *(STOT SE 3)*	H336: May cause drowsiness or dizziness.	Calculation method.
STOT-repeated exposure *(STOT RE 2)*	H373: May cause damage to organs through prolonged or repeated exposure. ()	Calculation method.
Hazardous to the aquatic environment *(Aquatic Chronic 3)*	H412: Harmful to aquatic life with long lasting effects.	Calculation method.

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

Hazard statements	
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Supplemental hazard information	
EUH066	Repeated exposure may cause skin dryness or cracking.

16.6. Training advice

No data available

16.7. Additional information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

* Data changed compared with the previous version.