SAFETY DATA SHEET

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

Revision date: 1 Nov 2022
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Version: 3.1

UNIVERSAL CLEANER

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

1.1. Product identifier

Trade name/designation:

UNIVERSAL CLEANER

UFI:
CRQH-N2YN-UFD9-D783

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

Relevant identified uses:

Product Categories [PC]

PC 35: Washing and cleaning products

1.3. Details of the supplier of the safety data sheet

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

TPH Bausysteme GmbH
Nordportbogen 8
22848 Norderstedt
Germany
Telephone: +49 40 52 90 66 78-0
Telefax: +49 40 52 90 66 78-78
E-mail: info@tph-bausysteme.com
Website: www.tph-bausysteme.com

E-mail (competent person): sdb-info@tph-bausysteme.com

1.4. Emergency telephone number

24h: International access phone number: +1-813-248-0585 /// United States, Canada, Puerto Rico, U.S. Virgin Islands: 1-800-255-3924 (Contract No. MIS7249185) /// Australia: 1-300-954-583 /// Brazil: 0-800-591-6042 /// China: 400-120-0751 /// India: 000-800-100-4086 /// Mexico: 800-099-0731

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
flammable liquids *(Flam. Liq. 3)*	H226: Flammable liquid and vapour.	
Aspiration hazard *(Asp. Tox. 1)*	H304: May be fatal if swallowed and enters airways.	
Acute toxicity (dermal) *(Acute Tox. 4)*	H312: Harmful in contact with skin.	
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	
Serious eye damage/eye irritation *(Eye Irrit. 2)*	H319: Causes serious eye irritation.	
Acute toxicity (inhalative) *(Acute Tox. 4)*	H332: Harmful if inhaled.	
STOT-single exposure *(STOT SE 3)*	H335: May cause respiratory irritation.	
STOT-single exposure *(STOT SE 3)*	H336: May cause drowsiness or dizziness.	
Carcinogenicity *(Carc. 2)*	H351: Suspected of causing cancer.	
STOT-repeated exposure *(STOT RE 2)*	H373: May cause damage to organs through prolonged or repeated exposure.	

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2.2. Label elements

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

Hazard pictograms:

GHS02
Flame

GHS07
Exclamation mark

GHS08
Health hazard

Signal word: Danger

Hazard components for labelling:
4-methylpentan-2-one; reaction mass of ethylbenzene and xylene

Hazard statements for physical hazards	
H226	Flammable liquid and vapour.

Hazard statements for health hazards	
H304	May be fatal if swallowed and enters airways.
H312 + H332	Harmful in contact with skin or if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

Supplemental hazard information: none

Precautionary statements Prevention	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.

Precautionary statements Response	
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/-.
P331	Do NOT induce vomiting.
P370 + P378	In case of fire: Use sand, extinguishing powder or alcohol-resistant foam to extinguish.

2.3. Other hazards

No data available

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
EC No.: 905-588-0 **REACH No.:** 01-2119488216-32-XXXX	**reaction mass of ethylbenzene and 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**	41 – < 70 weight-%
CAS No.: 108-65-6 **EC No.:** 203-603-9 **Index No.:** 607-195-00-7 **REACH No.:** 01-2119475791-29-XXXX	**2-methoxy-1-methylethyl acetate** Flam. Liq. 3 (H226) **Warning**	17 – < 30 weight-%

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 108-10-1 **EC No.:** 203-550-1 **Index No.:** 606-004-00-4 **REACH No.:** 01-2119473980-30-XXXX	**4-methylpentan-2-one** Acute Tox. 4 (H332), Carc. 2 (H351), Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H336) **Danger** EUH066 **Acute Toxicity Estimate** ATE (inhalation, vapour): 11 mg/L	11 – < 20 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:

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

Following inhalation:

Provide fresh air. In case of respiratory tract irritation, consult a physician. Get medical advice/attention if you feel unwell. Get medical advice/attention.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention. Get medical advice/attention.

After eye contact:

In case of contact with eyes, rinse immediately thoroughly with plenty of edible oil and consult an ophthalmologist.

Following ingestion:

Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Get immediate medical advice/attention. If unconscious but breathing normally, place in recovery position and seek medical advice. Rinse mouth. Let water be drunken in little sips (dilution effect).

Self-protection of the first aider:

Use personal protection equipment. Avoid contact with skin, eyes and clothes. No direct artificial respiration to be given by first aider. First aider: Pay attention to self-protection!

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

Pneumonia Pulmonary oedema Skin corrosion/irritation Serious eye damage/eye irritation Irritation to respiratory tract Dizziness Dizziness

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Dry extinguishing powder Foam Carbon dioxide (CO2) Extinguishing powder

Unsuitable extinguishing media:

Full water jet

5.2. Special hazards arising from the substance or mixture

highly flammable liquid and vapour The vapour is heavier than air and may travel along the ground; distant ignition possible. Reignition possible over considerable distance.

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

5.3. Advice for firefighters
Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:
Remove persons to safety. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

6.1.2. For emergency responders

Personal protection equipment:
Personal protection equipment: see section 8

6.2. Environmental precautions
Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. 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:
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up:
Solvents/Thinner

6.4. Reference to other sections
Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:
Wear personal protection equipment (refer to section 8). Keep only in the original container in a cool, well-ventilated place. Conditions to avoid: Skin contact Eye contact Inhalation of vapours or spray/mists

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

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:
Keep container tightly closed in a cool, well-ventilated place.

Packaging materials:
Keep only in the original container in a cool, well-ventilated place.

Requirements for storage rooms and vessels:
Avoid high temperatures or direct sunlight.

Hints on storage assembly:
Do not store together with: oxidising Oxidizing agent

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

Further information on storage conditions:
Conditions to avoid: UV-radiation/sunlight Heat Frost

7.3. Specific end use(s)
No data available

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
VRC (FR)	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (peut être absorbé par la peau)
BE	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (peut être absorbé par la peau) D
CZ	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 49.14 ppm (270 mg/m³) ② 100.1 ppm (550 mg/m³) ⑤ (může pronikat pokožkou) D, I
TRGS 900 (DE)	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (270 mg/m³) ② 50 ppm (270 mg/m³) ⑤ DFG, EU, Y
PL	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 260 mg/m³ ② 520 mg/m³ ⑤ (może przenikać przez skórę do organizmu) skóra
NO	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (270 mg/m³) ⑤ (kan absorberes gjennom huden) HE
IE	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (may be absorbed through the skin) SK, IOELV
HTP (FI)	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (270 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (kan absorberas genom huden) iho
DK	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 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
LT	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (250 mg/m³) ② 75 ppm (400 mg/m³) ⑤ (tikėtinas įsisavinimas per odą) O
SE	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (kan absorberas genom huden)
NPEL (SK)	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (rátajte so vstrebávaním cez pokožku) K
MAK (AT)	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	② 100 ppm (550 mg/m³) ⑤ (max. 8x5 min./Schicht, Momentanwert, kann über die Haut aufgenommen werden) H
BG	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (трябва да се очаква абсорбиране през кожата)
HR	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (mora se uzeti u obzir prodiranje kroz kožu) koža
ES	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (puede ser absorbido a través dérmica) vía dérmica, VLI
RO	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (e de asteptat asimilarea prin piele) P
EE	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (naha kaudu kergesti absorbeeruvad ained) A, S
LV	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (var absorbet caur adu) Āda
BC (CA)	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm ② 75 ppm
IOELV (EU)	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (may be absorbed through the skin)
Ontario (CA)	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (270 mg/m³)
MAK (AT)	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ⑤ (kann über die Haut aufgenommen werden) H
WEL (GB)	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (274 mg/m³) ② 100 ppm (548 mg/m³) ⑤ (may be absorbed through the skin)

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
SI	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (računati je treba z možnostjo prodiranja skozi kožo) K, Y, EU1
HU	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 275 mg/m³ ② 550 mg/m³ ⑤ N
IS	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (efnið getur auðveldlega borist inn í líkamann gegnum húð) H
CH	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 50 ppm (275 mg/m³) ⑤ SSC; Tox: OAW
RU	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	③ 10 mg/m³
GR	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (αναμένετε απορρόφηση από το δέρμα)
NL	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 550 mg/m³
TR	2-methoxy-1-methylethyl acetate **CAS No.:** 108-65-6 **EC No.:** 203-603-9	① 50 ppm (275 mg/m³) ② 100 ppm (550 mg/m³) ⑤ (cilt yoluyla alınabilir) Deri
CH	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (82 mg/m³) ② 40 ppm (164 mg/m³) ⑤ (kann über die Haut aufgenommen werden) H SSC B; Tox: OAW ZNS Auge; Messmeth: INRS NIOSH DFG
MAK (AT)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ⑤ (kann über die Haut aufgenommen werden) H
BE	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³)
CZ	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 19.2 ppm (80 mg/m³) ② 48 ppm (200 mg/m³) ⑤ (může pronikat pokožkou) D, I
PL	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 83 mg/m³ ② 200 mg/m³
TRGS 900 (DE)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 40 ppm (166 mg/m³) ⑤ (kann über die Haut aufgenommen werden) DFG, EU, H, Y

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
NO	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³) ⑤ (kan absorberes gjennom huden) HES
IE	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³) ⑤ (may be absorbed through the skin) Sk, IOELV
HTP (FI)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (80 mg/m³) ② 50 ppm (210 mg/m³)
LT	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³) ⑤
DK	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³) ⑤ (kan optages gennem huden) EH
NPEL (SK)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³) ⑤ (4-Metylpentán-2-ón izobutylmetylketón, hexón)
MAK (AT)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	② 50 ppm (208 mg/m³) ⑤ (max. 4x15 min./Schicht, kann über die Haut aufgenommen werden) H
BG	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 50 ppm (200 mg/m³)
HR	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³)
ES	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³) ⑤ VLB®, VLI
RO	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³) ⑤ (4-Metilpentan-2-on)
EE	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³)
LV	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³)
Alberta (CA)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 50 ppm (205 mg/m³) ② 75 ppm (307 mg/m³)
MY	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 50 ppm (205 mg/m³)
BC (CA)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm ② 75 ppm ⑤ 2B

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)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³)
VRC (FR)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³)
JP	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 50 ppm (205 mg/m³)
MX	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm ② 75 ppm
WEL (GB)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 50 ppm (208 mg/m³) ② 100 ppm (416 mg/m³) ⑤ (may be absorbed through the skin)
SI	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³) ⑤ (računati je treba z možnostjo prodiranja skozi kožo) K, Y, BAT, EU1
TW	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 50 ppm (205 mg/m³)
IS	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³) ⑤ (efnið getur auðveldlega borist inn í líkamann gegnum húð) H
HU	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 83 mg/m³ ② 208 mg/m³ ⑤ N
RU	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	③ 5 mg/m³
NL	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 104 mg/m³ ② 208 mg/m³
GR	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 100 ppm (410 mg/m³) ② 100 ppm (410 mg/m³) ⑤ (αναμένετε απορρόφηση από το δέρμα)
SE	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 25 ppm (100 mg/m³) ② 50 ppm (200 mg/m³)
TR	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (83 mg/m³) ② 50 ppm (208 mg/m³)
IDLH (US)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 500 ppm
Québec (CA)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 50 ppm (205 mg/m³) ② 75 ppm (307 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
OSHA (US)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 100 ppm (410 mg/m³)
NIOSH (US)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 50 ppm (205 mg/m³) ② 75 ppm (300 mg/m³)
ACGIH (US)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	① 20 ppm (82 mg/m³) ② 75 ppm (307 mg/m³)

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
TRGS 903 (DE)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	0.7 mg/L	① 4-Methylpentan-2-on ② Urin ③ Expositionsende bzw. Schichtende
BAT (CH)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	0.7 mg/L	① 4-Methylpentan-2-on ② Urin ③ Expositionsende bzw. Schichtende
VLB (ES)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	1 mg/l	① Metilisobutilcetona ② orina ③ fin de exposición o fin de turno
OEL-B (JP)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	1.7 mg/L	① Methyl isobutylketone ② urine ③ end of exposure or end of shift
BMGV (GB)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	20 µmol/L	① 4-methylpentan - 2-one ② urine ③ end of exposure or end of shift
BMH (SK)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	3.5 mg/L	① Hexón ② urín ③ koniec expozície, príp. koniec zmeny
ACGIH-BEI (US)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	1 mg/L	① MIBK ② urine ③ end of exposure or end of shift
BAT (SI)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	0.7 mg/L	① 4-metilpentan-2-on ② urin ③ ob koncu delovne izmene
BIO (HU)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	3.5 mg/L	① Metil-izo-butil-keton ② vizelet ③ expozíció vége illetve műszak vége
BIO (HR)	4-methylpentan-2-one **CAS No.:** 108-10-1 **EC No.:** 203-550-1	3.5 mg/L	① 4-Metilpentan-2-on ② urin ③ bez ograničenja

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	221 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	65.3 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	442 mg/m³	① DNEL worker ② Acute - inhalation, systemic effects
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	260 mg/m³	① DNEL Consumer ② Acute - inhalation, systemic effects
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	221 mg/m³	① DNEL worker ② Long-term – inhalation, local effects
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	65.3 mg/m³	① DNEL Consumer ② Long-term – inhalation, local effects
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	442 mg/m³	① DNEL worker ② Acute - inhalation, local effects
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	260 mg/m³	① DNEL Consumer ② Acute - inhalation, local effects
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	212 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	125 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	12.5 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects

Substance name	PNEC Value	① PNEC type
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	0.327 mg/L	① PNEC aquatic, freshwater
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	0.327 mg/L	① PNEC aquatic, marine water
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	6.58 mg/L	① PNEC sewage treatment plant
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	12.46 mg/kg	① PNEC sediment, freshwater
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	12.46 mg/kg	① PNEC sediment, marine water
reaction mass of ethylbenzene and xylene **EC No.:** 905-588-0	2.31 mg/kg	① PNEC soil

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No data available

8.2.2. Personal protection equipment

Eye/face protection:

Eye glasses with side protection EN 166

Skin protection:

Tested protective gloves must be worn EN ISO 374 Breakthrough times and swelling properties of the material must be taken into consideration.

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Filter type: A-P2

8.2.3. Environmental exposure controls
No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid **Colour:** colourless

Odour: not determined

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	*not determined*		
Melting point	< -25 °C		
Freezing point	*not determined*		
Initial boiling point and boiling range	114 – 146 °C		
Decomposition temperature	*not determined*		
Flash point	25.5 °C		
Evaporation rate	*not determined*		
Auto-ignition temperature	*not determined*		
Upper/lower flammability or explosive limits	1 – 7 Vol-%		
Vapour pressure	20 hPa	20 °C	
Vapour density	*not determined*		
Density	0.88 g/cm³		① EN ISO 2811-1
Relative density	*not determined*		
Bulk density	*not determined*		
Water solubility	Immiscible		
Partition coefficient: n-octanol/water	*not determined*		
Dynamic viscosity	*not determined*		
Kinematic viscosity	*not determined*		
Self ignition temperature	245 °C		

9.2. Other information
No data available

SECTION 10: Stability and reactivity

10.1. Reactivity
Flammable liquid and vapour.

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

10.3. Possibility of hazardous reactions
Peroxide formation possible with air oxygen.

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

10.5. Incompatible materials
Materials to avoid : Oxidizing agent Strong acid

10.6. Hazardous decomposition products
Carbon dioxide

SECTION 11: Toxicological information

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

reaction mass of ethylbenzene and xylene	**EC No.:** 905-588-0
LD_{50} oral: 5,251 mg/kg (Rat female)	
LC_{50} Acute inhalation toxicity (vapour): 29,091 mg/L 4 h (Rat male)	
2-methoxy-1-methylethyl acetate	**CAS No.:** 108-65-6 **EC No.:** 203-603-9
LD_{50} oral: 6,190 mg/kg (Rat)	
4-methylpentan-2-one	**CAS No.:** 108-10-1 **EC No.:** 203-550-1
ATE (inhalation, vapour)[1]: 11 mg/L	
LD_{50} oral: 2,080 mg/kg (Rat) OECD 401	

[1]: Acute Toxicity Estimate. Harmonised (legal) classification.

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

Acute dermal toxicity:
Harmful in contact with skin.

Acute inhalation toxicity:
Harmful if inhaled.

Skin corrosion/irritation:
Causes skin irritation.

Serious eye damage/irritation:
Causes serious eye irritation.

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

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

Carcinogenicity:
Suspected of causing cancer.

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

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

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

Aspiration hazard:
May be fatal if swallowed and enters airways.

Additional information:
No data available

11.2. Information on other hazards

No data available

SECTION 12: Ecological information

12.1. Toxicity

reaction mass of ethylbenzene and xylene	**EC No.:** 905-588-0
LC_{50}: 2.6 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout)) OECD 203	
LC_{50}: 1 mg/L (crustaceans, Daphnia magna (Big water flea)) 24h, OECD 202	
EC_{50}: >3.4 mg/L 2 d (crustaceans, Ceriodaphnia Dubia) US-EPA	
EC_{50}: 2.2 mg/L 3 d (Algae/water plant, Algae/water plant) OECD 201	
ErC_{50}: 4.9 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata) OECD 201	
NOEC: >1.3 mg/L 56 d (fish, Oncorhynchus mykiss (Rainbow trout))	
NOEC: 1.57 mg/L 21 d (crustaceans, Daphnia magna (Big water flea))	
2-methoxy-1-methylethyl acetate	**CAS No.:** 108-65-6 **EC No.:** 203-603-9
LC_{50}: 130 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout))	
LC_{50}: 408 mg/L 2 d (Daphnia magna (Big water flea))	
4-methylpentan-2-one	**CAS No.:** 108-10-1 **EC No.:** 203-550-1
LC_{50}: >179 mg/L 4 d (fish, Danio rerio (zebrafish)) OECD 203	
EC_{50}: >200 mg/L 2 d (Daphnia magna (Big water flea)) OECD 202	
NOEC: >146 mg/L (Algae/water plant, Lemna gibba (swollen duckweed)) 7d	

12.2. Persistence and degradability

4-methylpentan-2-one	**CAS No.:** 108-10-1 **EC No.:** 203-550-1
Biodegradation: Yes, rapidly	

12.3. Bioaccumulative potential

reaction mass of ethylbenzene and xylene	**EC No.:** 905-588-0
Log K_{OW}: 3.1	
4-methylpentan-2-one	**CAS No.:** 108-10-1 **EC No.:** 203-550-1
Log K_{OW}: 1.9	

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

reaction mass of ethylbenzene and xylene	**EC No.:** 905-588-0
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.	
2-methoxy-1-methylethyl acetate	**CAS No.:** 108-65-6 **EC No.:** 203-603-9
Results of PBT and vPvB assessment: —	
4-methylpentan-2-one	**CAS No.:** 108-10-1 **EC No.:** 203-550-1
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.	

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV
Waste code product

07 01 04 *	other organic solvents, washing liquids and mother liquors

**: Evidence for disposal must be provided.*

Waste treatment options

Appropriate disposal / Product:

Consult the appropriate local waste disposal expert about waste disposal.

13.2. Additional information

Do not mix with other wastes. Do not allow to enter into surface water or drains.

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. (reaction mass of ethylbenzene and xylene, 2-methoxy-1-methylethyl acetate)	FLAMMABLE LIQUID, N.O.S. (reaction mass of ethylbenzene and xylene, 2-methoxy-1-methylethyl acetate)	FLAMMABLE LIQUID, N.O.S. (reaction mass of ethylbenzene and xylene, 2-methoxy-1-methylethyl acetate)	FLAMMABLE LIQUID, N.O.S. (reaction mass of ethylbenzene and xylene, 2-methoxy-1-methylethyl acetate)
14.3. Transport hazard class(es)			
3	3	3	3
14.4. Packing group			
III	III	III	III
14.5. Environmental hazards			
No	No	No	No
14.6. Special precautions for user			
Special Provisions: 274 | 601 **Limited quantity (LQ):** 5 L **Excepted Quantities (EQ):** E1 **Hazard identification number (Kemler No.):** 30 **Classification code:** F1 **Tunnel restriction code:** (D/E)	**Special Provisions:** 274 | 601 **Limited quantity (LQ):** 5 L **Excepted Quantities (EQ):** E1 **Classification code:** F1	**Special Provisions:** 223 | 274 | 955 **Limited quantity (LQ):** 5 L **Excepted Quantities (EQ):** E1 **EmS-No.:** F-E, S-E	**Special Provisions:** A3 **Limited quantity (LQ):** Y344 **Excepted Quantities (EQ):** E1

14.7. Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

15.1.1. EU legislation

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

Volatile organic compounds (VOC) content in percent by weight: 100 weight-%

15.1.2. National regulations

[DE] National regulations

Störfallverordnung (12. BImschV)

for substances contained in the product:

6

Water hazard class

WGK:

2 - deutlich wassergefährdend

Other regulations, restrictions and prohibition regulations

Arbeitsmedizinische Grundsätze G29: "Toluol, Xylole"
ZH 1/75.1 "Verordnung über brennbare Flüssigkeiten"
ZH 1/129 "Merkblatt: Reizende Stoffe/Ätzende Stoffe (M 004)"
ZH 1/319 "Merkblatt: Lösemittel (M 017)"

15.2. Chemical Safety Assessment

No data available

SECTION 16: Other information

16.1. Indication of changes

No data available

16.2. Abbreviations and acronyms

No data available

16.3. Key literature references and sources for data

No data available

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. 3)*	H226: Flammable liquid and vapour.	
Aspiration hazard *(Asp. Tox. 1)*	H304: May be fatal if swallowed and enters airways.	
Acute toxicity (dermal) *(Acute Tox. 4)*	H312: Harmful in contact with skin.	
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	
Serious eye damage/eye irritation *(Eye Irrit. 2)*	H319: Causes serious eye irritation.	
Acute toxicity (inhalative) *(Acute Tox. 4)*	H332: Harmful if inhaled.	
STOT-single exposure *(STOT SE 3)*	H335: May cause respiratory irritation.	
STOT-single exposure *(STOT SE 3)*	H336: May cause drowsiness or dizziness.	
Carcinogenicity *(Carc. 2)*	H351: Suspected of causing cancer.	
STOT-repeated exposure *(STOT RE 2)*	H373: May cause damage to organs through prolonged or repeated exposure.	

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.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Hazard statements	
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

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

16.6. Training advice

No data available

16.7. Additional information

No data available