Techno Finisher 2K 200ml

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

1.1. Product identifier

Trade name/designation:

Techno Finisher 2K 200ml

Article No.:
T122002

UFI:
43FX-MU19-8N4G-S2FD

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

Use of the substance/mixture:
Lacquer

Relevant identified uses:

Product Categories [PC]
PC 9a: Coatings and paints, thinners, paint removers
Process categories [PROC]
PROC 7: Industrial spraying
PROC 11: Non industrial spraying

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1.3. Details of the supplier of the safety data sheet

Supplier:

KANDO Service GmbH
Hartleitnerstraße 3
4653 Eberstalzell
Austria
Telephone: +43 (0) 7241 213 79
E-mail: msds@kando.eu

1.4. Emergency telephone number

Vergiftungsinformationszentrale (VIZ), Stubenring 6, 1010 Wien, 24h: 01 406 43 43, Montag - Freitag: 8 bis 16 Uhr, Tel.: 01 406 68 98 (keine medizinische Auskunft) (Only available during office hours.)

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
aerosol dispensers and lighters *(Aerosol 1)*	H222; H229: Extremely flammable aerosol. Pressurised container: May burst if heated.	
Serious eye damage/eye irritation *(Eye Irrit. 2)*	H319: Causes serious eye irritation.	
STOT-single exposure *(STOT SE 3)*	H336: May cause drowsiness or dizziness.	
Respiratory or skin sensitisation *(Skin Sens. 1)*	H317: May cause an allergic skin reaction.	

2.2. Label elements

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

Hazard pictograms:

GHS02
Flame

GHS07
Exclamation mark

Signal word: Danger

Hazard components for labelling:
Aliphatic polyisocyanate; acetone; n-butyl acetate; 2-methoxy-1-methylethyl acetate; 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate; reaction mass of α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene) and α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene)

Hazard statements for physical hazards	
H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.

Hazard statements for health hazards	
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Supplemental hazard information	
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

Precautionary statements Prevention	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe spray.
P280	Wear protective gloves.

Precautionary statements Response	
P302 + P352	IF ON SKIN: Wash with plenty of water.

Precautionary statements Storage	
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

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

Additional information:
Formation of explosive mixtures possible without adequate ventilation.
As from 24 August 2023 adequate training is required before industrial or professional use.

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

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3.2. Mixtures

Additional information:

The content of benzene (EINECS No. 200-753-7) in the individual components is below 0.1% (Note P Annex VI to Directive (EC) No 1272/2008). Xylene: Contains ethylbenzene CAS 100-41-4.

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 115-10-6 EC No.: 204-065-8 Index No.: 603-019-00-8 REACH No.: 01-2119472128-37	**dimethyl ether** Flam. Gas 1A (H220), Press. Gas (Comp.) (H280)  Danger **Acute Toxicity Estimate** ATE (oral) > 2,000 mg/kg ATE (dermal) > 2,000 mg/kg ATE (inhalation, gases) 308.5 ppmV ATE (inhalation, dust/mist) 308.5 mg/L	25 – < 50 Vol-%
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 **Acute Toxicity Estimate** ATE (oral) 5,800 mg/kg ATE (dermal) 20,000 mg/kg ATE (inhalation, gases) 76 ppmV ATE (inhalation, vapour) 5,540 mg/L ATE (inhalation, dust/mist) 76 mg/L	12.5 – < 20 Vol-%
CAS No.: 123-86-4 EC No.: 204-658-1 Index No.: 607-025-00-1 REACH No.: 01-2119485493-29	**n-butyl acetate** Flam. Liq. 3 (H226), STOT SE 3 (H336)  Warning **Acute Toxicity Estimate** ATE (oral) 10,800 mg/kg ATE (dermal) > 17,600 mg/kg ATE (inhalation, gases) > 21 ppmV ATE (inhalation, vapour) > 21 mg/L	12.5 – < 20 Vol-%
CAS No.: 108-65-6 EC No.: 203-603-9 Index No.: 607-195-00-7 REACH No.: 01-2119475791-29	**2-methoxy-1-methylethyl acetate** Flam. Liq. 3 (H226), STOT SE 3 (H336)  Warning **Acute Toxicity Estimate** ATE (oral) 8,560 mg/kg ATE (dermal) > 5,000 mg/kg ATE (inhalation, gases) > 10,000 ppmV ATE (inhalation, vapour) > 10 mg/L	5 – < 10 Vol-%
EC No.: 905-588-0 Index No.: 601-022-00-9 REACH No.: 01-2119488216-32	**Xylol (Isomeric)** 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 **Acute Toxicity Estimate** ATE (oral) 3,523 mg/kg ATE (dermal) 2,000 mg/kg ATE (inhalation, dust/mist) 29,000 mg/kg	2.5 – < 5 Vol-%
EC No.: 931-274-8 REACH No.: 01-2119485796-17	**Aliphatic polyisocyanate** Acute Tox. 4 (H312), STOT SE 3 (H335), Skin Sens. 1 (H317)  Warning **Acute Toxicity Estimate** ATE (oral) 2,500 mg/kg ATE (dermal) 2,000 mg/kg ATE (inhalation, dust/mist) 400 mg/L	2.5 – < 5 Vol-%

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 128601-23-0 EC No.: 918-668-5 REACH No.: 01-2119455851-35	**Hydrocarbons, C9, aromatics** Aquatic Chronic 2 (H411), Asp. Tox. 1 (H304), Flam. Liq. 3 (H226), STOT SE 3 (H335, H336)  Danger **Acute Toxicity Estimate** ATE (oral) 3,492 mg/kg ATE (dermal) > 3,160 mg/kg ATE (inhalation, gases) > 6,193 ppmV	< 2.5 Vol-%
EC No.: 400-830-7 Index No.: 607-176-00-3 REACH No.: 01-2119396032-43	**reaction mass of α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene) and α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene)** Aquatic Chronic 2 (H411), Skin Sens. 1 (H317)  Warning	≤ 0.5 Vol-%
CAS No.: 4098-71-9 EC No.: 223-861-6 Index No.: 615-008-00-5 REACH No.: 01-2119490408-31	**3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate** Acute Tox. 3 (H331), Aquatic Chronic 2 (H411), Eye Irrit. 2 (H319), Resp. Sens. 1 (H334), STOT SE 3 (H335), Skin Irrit. 2 (H315), Skin Sens. 1 (H317)  Danger **Specific concentration limit (SCL)** Resp. Sens. 1; H334: C ≥ 0.5% Skin Sens. 1; H317: C ≥ 0.5% **Acute Toxicity Estimate** ATE (inhalation, vapour) 3 mg/L ATE (inhalation, dust/mist) 0.5 mg/L	≤ 0.5 Vol-%
CAS No.: 1065336-91-5 EC No.: 915-687-0 REACH No.: 01-2119491304-40	**Reaktionsgemisch aus Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacat und Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacat** Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410), Repr. 2 (H361f), Skin Sens. 1A (H317)  Warning	≤ 0.5 Vol-%

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Following inhalation:
Get plenty of fresh air and consult a doctor to be on the safe side.
If unconscious, position and transport in stable lateral position.

In case of skin contact:
Wash off immediately with soap and water and rinse well.

After eye contact:
Rinse opened eye for several minutes under running water. Consult a doctor if symptoms persist

Following ingestion:
Drink plenty of water. Provide fresh air. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed
No further relevant information available.

4.3. Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Carbon dioxide (CO2), Extinguishing powder, Water spray jet. Fight larger fires with water spray or alcohol-resistant foam.
Adapt fire extinguishing measures to the surroundings.

5.2. Special hazards arising from the substance or mixture
Formation of toxic gases when heated or in case of fire.

5.3. Advice for firefighters
Special protective equipment: Put on breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Personal precautions:
Use of respiratory protective equipment.
Wear protective equipment. Keep unprotected persons away.
Keep away from sources of ignition - No smoking.

6.1.2. For emergency responders
No data available

6.2. Environmental precautions
Do not allow to enter into surface water or drains. In case of spillage into water or sewage system, inform the competent authorities.

6.3. Methods and material for containment and cleaning up
Other information:
Dispose of contaminated material as waste according to section 13..
Provide adequate ventilation.

6.4. Reference to other sections
See section 7 for further information on safe handling.
For further information on personal protective equipment: see section 8.
For further information on disposal: see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures
Advices on safe handling:
Ensure good ventilation/extraction at the workplace.
Fire prevent measures:
Keep away from sources of ignition - No smoking. Have breathing apparatus ready.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels:
The official regulations for the storage of pressurised gas packages must be observed.
Hints on storage assembly:
Not required.
Storage class (TRGS 510, Germany): 2B – Aerosol dispensers and lighters
Further information on storage conditions:
Keep container tightly closed.

7.3. Specific end use(s)
Recommendation:
No further relevant information available.

SECTION 8: Exposure controls/personal protection

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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
MAK (AT)	**dimethyl ether** CAS No.: 115-10-6 EC No.: 204-065-8	① 1,000 ppm (1,910 mg/m³)
MAK (AT)	**dimethyl ether** CAS No.: 115-10-6 EC No.: 204-065-8	② 2,000 ppm (3,820 mg/m³) ⑤ (max. 3x60 min./Schicht, Momentanwert)
IOELV (EU)	**dimethyl ether** CAS No.: 115-10-6 EC No.: 204-065-8	① 1,000 ppm (1,920 mg/m³)
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)
IOELV (EU)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³)
MAK (AT)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,200 mg/m³)
MAK (AT) from 10 Apr 2021	**n-butyl acetate** CAS No.: 123-86-4 EC No.: 204-658-1	① 50 ppm (241 mg/m³) ② 100 ppm (480 mg/m³)
IOELV (EU) from 20 Nov 2019	**n-butyl acetate** CAS No.: 123-86-4 EC No.: 204-658-1	① 50 ppm (241 mg/m³) ② 150 ppm (723 mg/m³)
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
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)
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
MAK (AT) from 25 Sept 2018	**Xylol (Isomeric)** EC No.: 905-588-0	② 100 ppm (442 mg/m³) ⑤ (max. 4x15 min./Schicht)
IOELV (EU)	**Xylol (Isomeric)** EC No.: 905-588-0	① 50 ppm (221 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (may be absorbed through the skin)
MAK (AT) from 25 Sept 2018	**Xylol (Isomeric)** EC No.: 905-588-0	① 50 ppm (221 mg/m³)
MAK (AT) from 19 Dec 2011	**3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate** CAS No.: 4098-71-9 EC No.: 223-861-6	② 0.01 ppm (0.092 mg/m³) ⑤ (max. 8x5 min./Schicht, Momentanwert) Sah
MAK (AT) from 19 Dec 2011	**3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate** CAS No.: 4098-71-9 EC No.: 223-861-6	① 0.005 ppm (0.046 mg/m³) ⑤ Sah

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
BOELV (EU) from 8 Apr 2024	**3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate** CAS No.: 4098-71-9 EC No.: 223-861-6	① 10 µg/m³ ② 20 µg/m³ ⑤ (may be absorbed through the skin)
BOELV (EU) from 1 Jan 2029	**3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate** CAS No.: 4098-71-9 EC No.: 223-861-6	① 6 µg/m³ ② 12 µg/m³ ⑤ (may be absorbed through the skin)

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8	1,894 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8	471 mg/m³	① DNEL Consumer ② Long-term – inhalation, 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, local 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
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	300 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	35.7 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	600 mg/m³	① DNEL worker ② Acute - inhalation, systemic effects
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	859.7 mg/m³	① DNEL Consumer ② Acute - inhalation, systemic effects
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	300 mg/m³	① DNEL worker ② Long-term – inhalation, local effects

Substance name	DNEL value	① DNEL type ② Exposure route
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	35.7 mg/m³	① DNEL Consumer ② Long-term – inhalation, local effects
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	600 mg/m³	① DNEL worker ② Acute - inhalation, local effects
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	300 mg/m³	① DNEL Consumer ② Acute - inhalation, local effects
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	11 mg/kg bw/ day	① DNEL worker ② Long-term - dermal, systemic effects
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	5 mg/kg bw/ day	① DNEL Consumer ② Long-term - dermal, systemic effects
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	11 mg/kg bw/ day	① DNEL worker ② Acute – dermal, systemic effects
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	5 mg/kg bw/ day	① DNEL Consumer ② Acute – dermal, systemic effects
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	2 mg/kg bw/ day	① DNEL Consumer ② Long-term - oral, systemic effects
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	2 mg/kg bw/ day	① DNEL Consumer ② Acute – oral, systemic effects
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	275 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	33 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	796 mg/kg bw/ day	① DNEL worker ② Long-term - dermal, systemic effects
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	320 mg/kg bw/ day	① DNEL Consumer ② Long-term - dermal, systemic effects
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	36 mg/kg bw/ day	① DNEL Consumer ② Long-term - oral, systemic effects
Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5	100 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5	32 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5	25 mg/kg bw/ day	① DNEL worker ② Long-term - dermal, systemic effects
Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5	11 mg/kg bw/ day	① DNEL Consumer ② Long-term - dermal, systemic effects

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Substance name	DNEL value	① DNEL type ② Exposure route
Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5	11 mg/kg bw/ day	① DNEL Consumer ② Long-term - oral, systemic effects

Substance name	PNEC Value	① PNEC type
dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8	0.155 mg/L	① PNEC aquatic, freshwater
dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8	0.016 mg/L	① PNEC aquatic, marine water
dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8	0.681 mg/kg	① PNEC sediment, freshwater
dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8	0.069 mg/kg	① PNEC sediment, marine water
dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8	0.045 mg/kg	① PNEC soil
dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8	1.549 mg/L	① PNEC aquatic, intermittent release
acetone CAS No.: 67-64-1 EC No.: 200-662-2	10.6 mg/L	① PNEC aquatic, freshwater
acetone CAS No.: 67-64-1 EC No.: 200-662-2	1.06 mg/L	① PNEC aquatic, marine water
acetone CAS No.: 67-64-1 EC No.: 200-662-2	100 mg/L	① PNEC sewage treatment plant
acetone CAS No.: 67-64-1 EC No.: 200-662-2	30.4 mg/kg	① PNEC sediment, freshwater
acetone CAS No.: 67-64-1 EC No.: 200-662-2	3.04 mg/kg	① PNEC sediment, marine water
acetone CAS No.: 67-64-1 EC No.: 200-662-2	29.5 mg/kg	① PNEC soil
acetone CAS No.: 67-64-1 EC No.: 200-662-2	21 mg/L	① PNEC aquatic, intermittent release
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	0.18 mg/L	① PNEC aquatic, freshwater
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	0.015 mg/L	① PNEC aquatic, marine water
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	35.6 mg/L	① PNEC sewage treatment plant
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	0.981 mg/L	① PNEC sediment, freshwater
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	0.0981 mg/L	① PNEC sediment, marine water

Substance name	PNEC Value	① PNEC type
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	0.0903 mg/kg	① PNEC soil
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	0.36	① PNEC aquatic, intermittent release
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	0.0635 mg/L	① PNEC aquatic, freshwater
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	0.0064 mg/L	① PNEC aquatic, marine water
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	100 mg/L	① PNEC sewage treatment plant
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	3.29 mg/L	① PNEC sediment, freshwater
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	0.329 mg/L	① PNEC sediment, marine water
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	0.29 mg/kg	① PNEC soil

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No further details. See section 7.

8.2.2. Personal protection equipment

Eye/face protection:

Safety goggles with side shields (EN 166).

Skin protection:

Hand protection:
Glove material: Butyl caoutchouc (butyl rubber)
The selection of a suitable glove depends not only on the material but also on other quality features and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of glove materials cannot be calculated in advance and must therefore be checked before use.
Permeation time (maximum wear duration):
Gloves made of butyl rubber with a material thickness of 0.4mm are resistant to: Acetone 480 min; Butyl acetate 60 min; Ethyl acetate 170 min; Xylene 42 min.
Gloves made of butyl rubber with a layer thickness of 0.4 mm are resistant to solvents for 42 - 480 minutes. As a precautionary measure, we recommend users and those responsible for occupational safety to take a resistance of 42 minutes as a basis. Taking into account the information in chapter 3 of the MSDS, it is possible to assume a higher resistance in individual cases.

Respiratory protection:

In case of short or low exposure use breathing filter apparatus; in case of intensive or prolonged exposure use self-contained breathing apparatus. Filter A2/P3

Other protection measures:

General protective and hygienic measures:
Keep away from food, drink and animal feed.
Remove contaminated, saturated clothing immediately.
Wash hands before breaks and after work.
Do not inhale gases/vapours/aerosols.
Avoid contact with skin, eyes and clothes.

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

Form: Aerosol
Colour: According to product designation
Odour: characteristic
flammability: No data available

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
Initial boiling point and boiling range	*not applicable*		
Evaporation rate	*No data available*		
Auto-ignition temperature	240 °C		② dimethyl ether (115-10-6)
Upper/lower flammability or explosive limits	1.2 – 26.2 Vol-%		② n-butyl acetate (123-86-4); dimethyl ether (115-10-6)
Vapour pressure	4,000 hPa	20 °C	② dimethyl ether (115-10-6)
Density	0.8 g/cm³	20 °C	
Water solubility	practically insoluble		

* **9.2. Other information**

Organic solvents: 83,81%
Solid content: 15,7%

9.2.1. Information with regard to physical hazard classes

Explosives:
Not applicable

Flammable gases:
Not applicable

Aerosols:
Extremely flammable aerosol. Pressurized container: May burst if heated.

Oxidizing gases:
Not applicable

Gases under pressure:
Not applicable

Flammable liquids:
Not applicable

Flammable solids:
Not applicable

Self-reactive substances and mixtures:
Not applicable

Pyrophoric liquids:
Not applicable

Pyrophoric solids:
Not applicable

Self-heating substances and mixtures:
Not applicable

Substances or mixtures which, in contact with water, emit flammable gases:
Not applicable

Oxidizing liquids:
Not applicable

Oxidizing solids:
Not applicable

Organic peroxides:
Not applicable

Corrosive to metals:
Not applicable

Desensitised explosives:
Not applicable

Additional information:
Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
No further relevant information available.

10.2. Chemical stability
Thermal decomposition / Conditions to avoid No decomposition when used as directed.

10.3. Possibility of hazardous reactions
No dangerous reactions known.

10.4. Conditions to avoid
No further relevant information available.

10.5. Incompatible materials
No further relevant information available.

10.6. Hazardous decomposition products
No dangerous decomposition products known.

SECTION 11: Toxicological information

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

dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8
LD_{50} oral: >2,000 mg/kg
LD_{50} dermal: >2,000 mg/kg
LC_{50} Acute inhalation toxicity (gas): 308.5 ppmV 4 h (Rat)
LC_{50} Acute inhalation toxicity (dust/mist): 308.5 mg/L 4 h (Rat)
acetone CAS No.: 67-64-1 EC No.: 200-662-2
ATE (oral): 5,800 mg/kg
ATE (dermal): 20,000 mg/kg
ATE (inhalation, dust/mist): 76 mg/L
LD_{50} oral: 5,800 mg/kg (Rat)
LD_{50} dermal: >15,800 mg/kg (Rabbit)
LC_{50} Acute inhalation toxicity (gas): 76 ppmV 4 h (Rat)
LC_{50} Acute inhalation toxicity (vapour): 5,540 mg/L 4 d (Oncorhynchus mykiss (Rainbow trout))
LC_{50} Acute inhalation toxicity (dust/mist): 76 mg/L 4 h (Rat)
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1
LD_{50} oral: 10,800 mg/kg (Rat) OECD 401
LD_{50} dermal: >17,600 mg/kg (Rabbit)
LC_{50} Acute inhalation toxicity (gas): >21 ppmV 4 h (Rat)
LC_{50} Acute inhalation toxicity (vapour): >21 mg/L 4 h (Rat)
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9
LD_{50} oral: 8,560 mg/kg (Rat)
LD_{50} dermal: >5,000 mg/kg (Rabbit) OECD 402
LC_{50} Acute inhalation toxicity (gas): >10,000 ppmV 4 h (Rat)
LC_{50} Acute inhalation toxicity (vapour): >10 mg/L 4 h (Rat)

Xylol (Isomeric) EC No.: 905-588-0	
LD_{50} oral: 3,523 mg/kg (Rat)	
LD_{50} dermal: 2,000 mg/kg (Rabbit)	
LC_{50} Acute inhalation toxicity (dust/mist): 29,000 mg/L 4 h (Rat)	
Aliphatic polyisocyanate EC No.: 931-274-8	
LD_{50} oral: 2,500 mg/kg (Rat) OECD 402	
LD_{50} dermal: 2,000 mg/kg (Rat) OECD 402	
LC_{50} Acute inhalation toxicity (dust/mist): 400 mg/L (Rat)	
Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5	
LD_{50} oral: 3,492 mg/kg (Rat)	
LD_{50} dermal: >3,160 mg/kg (Rabbit)	
LC_{50} Acute inhalation toxicity (gas): >6,193 ppmV 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:
Based on available data, the classification criteria are not met.

Skin corrosion/irritation:
Based on available data, the classification criteria are not met. No irritant effect.

Serious eye damage/irritation:
Causes serious eye irritation.

Respiratory or skin sensitisation:
May cause an allergic skin reaction.

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

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

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

STOT-single exposure:
May cause drowsiness or dizziness.

STOT-repeated exposure:
Based on available data, the classification criteria are not met.

Aspiration hazard:
Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties:
None of the ingredients are included.

SECTION 12: Ecological information

*

12.1. Toxicity

dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8	
LC_{50}: >4,000 mg/L 2 d (crustaceans, Daphnia magna)	
LC_{50}: >4,000 mg/L 4 d (fish)	
EC_{50}: 155 mg/L 4 d (Algae/water plant)	
LC_{50}: >4,000 mg/L 2 d (daphnia magna)	
EC_{50}: 155 mg/L 4 d (Alge)	
EC_{50}: 155 mg/L 4 d (algae)	

acetone CAS No.: 67-64-1 EC No.: 200-662-2
LC_{50}: 8,300 mg/L 4 d (fish)
LC_{50}: 8,450 mg/L 2 d (crustaceans, water flea)
LC_{50}: 8,300 mg/L 4 d (fish)
EC_{50}: 7,200 mg/L 4 d (Algae/water plant)
EC_{50}: 7,200 mg/L 4 d (Alge)
EC_{50}: 8,800 mg/L (Daphnia magna)
NOEC: 2,212 mg/L (crustaceans, Daphnia magna)
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1
LC_{50}: 18 mg/L 4 d (fish, Pimephales promelas)
EC_{50}: 44 mg/L 2 d (crustaceans, Daphnia magna)
EC_{50}: 675 mg/L 3 d (Algae/water plant, Scenedesmus subspicatus)
NOEC: 23.2 mg/L (crustaceans, Daphnia magna)
LC_{50}: 18 mg/L 4 d (fish)
EC_{50}: 44 mg/L 2 d (Daphnia magna)
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9
LC_{50}: <180 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout))
LC_{50}: 18 – 24 mg/L 4 d (fish, Pimephales promelas (fathead minnow))
LC_{50}: 100 – 180 mg/L 4 d (fish, Regenbogenforelle)
EC_{50}: >400 mg/L 2 d (crustaceans, Daphnia magna)
EC_{50}: 10 mg/L (Activated sludge) OECD 204
EC_{50}: >500 mg/L 2 d (crustaceans, daphnia magna)
NOEC: 47.5 mg/L (fish, Oryzias latipes)
NOEC: 100 mg/L (crustaceans, Daphnia magna)
IC_{50}: >25,000 mg/L 4 d (fish, Danio rerio (zebrafish))
ErC_{50}: >85 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata) OECD 203
Xylol (Isomeric) EC No.: 905-588-0
LC_{50}: 13.5 mg/L 4 d (fish)
EC_{50}: 7.4 mg/L 2 d (Algae/water plant)
Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5
EC_{50}: 3.2 mg/L 2 d (crustaceans, Daphnia magna)
EC_{50}: 2.75 mg/L 3 d (Algae/water plant, Pseudokirchneriella Subcapitata)
EC_{50}: 9.2 mg/L 4 d (fish)

Assessment/classification:
No further relevant information available.

12.2. Persistence and degradability

acetone CAS No.: 67-64-1 EC No.: 200-662-2
Biodegradation: Yes, rapidly
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1
Biodegradation: Yes, rapidly
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9
Biodegradation: Yes, rapidly

Additional information:
No further relevant information available.

12.3. Bioaccumulative potential

acetone CAS No.: 67-64-1 EC No.: 200-662-2
Log K_{OW}: -0.24

n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	
Log K_{OW}: 2.3	
Bioconcentration factor (BCF): 15.3	
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	
Log K_{OW}: 1.2	

Accumulation / Evaluation:
No further relevant information available.

12.4. Mobility in soil
No further relevant information available.

12.5. Results of PBT and vPvB assessment

dimethyl ether CAS No.: 115-10-6 EC No.: 204-065-8
Results of PBT and vPvB assessment: —
acetone CAS No.: 67-64-1 EC No.: 200-662-2
Results of PBT and vPvB assessment: —
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1
Results of PBT and vPvB assessment: —
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9
Results of PBT and vPvB assessment: —
Xylol (Isomeric) EC No.: 905-588-0
Results of PBT and vPvB assessment: —
Aliphatic polyisocyanate EC No.: 931-274-8
Results of PBT and vPvB assessment: —
Hydrocarbons, C9, aromatics CAS No.: 128601-23-0 EC No.: 918-668-5
Results of PBT and vPvB assessment: —

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

12.6. Endocrine disrupting properties
The product does not contain any substances with endocrine-disrupting properties.

12.7. Other adverse effects
Do not allow to enter into surface water or drains.
Drinking water hazard even when small quantities leak into the subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Must not be disposed of together with household waste. Do not allow to enter into surface water or drains.

13.1.1. Product/Packaging disposal

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

08 01 11 *	Waste paint and varnish containing organic solvents or other dangerous substances

**: Evidence for disposal must be provided.*

Waste code packaging

15 01 04	metallic packaging
15 01 10 *	packaging containing residues of or contaminated by dangerous substances

**: Evidence for disposal must be provided.*

Waste treatment options
Appropriate disposal / Package:
The packaging must be disposed of in accordance with the Packaging Ordinance.
Uncleaned packaging: Dispose of waste according to applicable legislation.

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 1950	UN 1950	UN 1950	UN 1950
14.2. UN proper shipping name			
AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable
14.3. Transport hazard class(es)			
 2.1	 2.1	 2.1	 2.1
14.4. Packing group			
		-	
14.5. Environmental hazards			
No	No	No	No
14.6. Special precautions for user			
Special Provisions: 190 | 327 | 344 | 625 **Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E0 **Classification code:** 5F **Tunnel restriction code:** (D) **Remark:** Attention: Gases	**Special Provisions:** 190 | 327 | 344 | 625 **Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E0 **Classification code:** 5F **Remark:** Attention: Gases	**Special Provisions:** 63 | 190 | 277 | 327 | 344 | 381 | 959 **Limited quantity (LQ):** Siehe SV277 **Excepted Quantities (EQ):** E0 **EmS-No.:** F-D, S-U **Remark:** Attention: Gases	**Special Provisions:** A145 | A167 **Limited quantity (LQ):** Y203 **Excepted Quantities (EQ):** E0 **Remark:** Attention: Gases

14.7. Maritime transport in bulk according to IMO instruments
not applicable

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Authorisations:
Directive 2012/18/EU
Named dangerous substances - ANNEX I: None of the ingredients are included.

Restrictions on use:
Regulation (EC) No 1907/2006 ANNEX XVII Restriction conditions: 3, 74
Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II: None of the ingredients are included.
Regulation (EU) 2019/1148
Regulation (EC) No 273/2004 on drug precursors: Acetone, Acetic anhydride, Toluene
Regulation (EC) No 111/2005 laying down rules for the monitoring of trade in drug precursors between the Community and third countries: Acetone, Acetic anhydride, Toluene

Other regulations (EU):
Hazard categories:
• P3a 'Flammable' aerosols Category 1 or 2, containing flammable gases Category 1 or 2 or flammable liquids

Named dangerous substances:

• Liquefied flammable gases, Category 1 or 2 (including liquefied petroleum gas) and natural gas
Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II: None of the ingredients are included.

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds:
Volatile organic compounds (VOC) content in percent by weight: 670.5 mg/L

15.1.2. National regulations
No data available

15.2. Chemical Safety Assessment
A chemical safety assessment has not been carried out.

SECTION 16: Other information

*
16.1. Indication of changes

1.3.	Details of the supplier of the safety data sheet
3.2.	Mixtures
8.1.	Control parameters
9.1.	Information on basic physical and chemical properties
9.2.	Other information
12.1.	Toxicity
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture
16.1.	Indication of changes
16.2.	Abbreviations and acronyms

*
16.2. Abbreviations and acronyms

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DNEL	derived no-effect level
EC_{50}	Effective Concentration 50%
EN	European Standard
ES	Exposure scenario
EWC	European Waste Catalogue
IC_{50}	Inhibition Concentration 50 %
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
KG	body weight
LC_{50}	Lethal (fatal) Concentration 50%
LD_{50}	Lethal (fatal) Dose 50%
MAK	Maximum concentration in the workplace air (CH)
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Cooperation and Development
OEL	Threshold Limit Value
OSHA	Occupational Safety & Health Administration
PBT	persistent and bioaccumulative and toxic
PC	Product category
PNEC	Predicted No Effect Concentration
PROC	Process Category
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Dangerous goods regulations for transport by rail
SCL	Specific concentration limit

TRGS	Technische Regeln für Gefahrstoffe
UN	United Nations
VOC	Volatile organic compounds
ZNS	central nervous system

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
aerosol dispensers and lighters *(Aerosol 1)*	H222; H229: Extremely flammable aerosol. Pressurised container: May burst if heated.	
Serious eye damage/eye irritation *(Eye Irrit. 2)*	H319: Causes serious eye irritation.	
STOT-single exposure *(STOT SE 3)*	H336: May cause drowsiness or dizziness.	
Respiratory or skin sensitisation *(Skin Sens. 1)*	H317: May cause an allergic skin reaction.	

16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

Hazard statements	
H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

16.6. Training advice
No data available

16.7. Additional information
To the best of our knowledge, the information contained herein is accurate. However, neither the above-mentioned supplier nor its subsidiaries assume any liability with regard to the correctness or completeness of the information provided. A final determination of the suitability of individual materials is the sole responsibility of the user. All materials may involve unknown risks and should be used with caution. While certain risks are described herein, we cannot guarantee that these are the only possible risks.

* Data changed compared with the previous version.