Techno Primer 400ml

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

1.1. Product identifier

Trade name/designation:

Techno Primer 400ml

Article No.:
T122005

UFI:
07W6-NWVC-X30J-Y1NM

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

Use of the substance/mixture:
Primers

Relevant identified uses:

Product Categories [PC]

PC 9a: Coatings and paints, thinners, paint removers

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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.	On basis of test data.
Serious eye damage/eye irritation *(Eye Irrit. 2)*	H319: Causes serious eye irritation.	Calculation method.
STOT-single exposure *(STOT SE 3)*	H336: May cause drowsiness or dizziness.	Calculation method.

Additional information:
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. The product must be accompanied by a safety data sheet in accordance with the provisions of Regulation (EU) 2020/878.

Techno Primer 400ml

2.2. Label elements

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

Hazard pictograms:

GHS07
Exclamation mark

GHS02
Flame

Signal word: Danger

Hazard components for labelling:
2-methoxy-1-methylethyl acetate; n-butyl acetate; acetone; ethyl acetate

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

Hazard statements for health hazards	
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

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

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.

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

Precautionary statements Disposal	
P501	Dispose of the contents / container in accordance with local / regional / national / international regulations.

2.3. Other hazards

Other adverse effects:
Based on the available information, the product does not contain any PBT or vPvB substances in content percentages ≥ 0.1%. The product does not contain any substances with endocrine-disrupting properties in concentrations of ≥ 0.1%.

SECTION 3: Composition/information on ingredients

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3.2. Mixtures

Additional information:
The product is an aerosol containing propellants. With regard to the calculation of health hazards, the propellants are not taken into account (unless they constitute a health hazard). The percentages given include the propellants.
Percentage of blowing agents: 49,00%

Techno Primer 400ml

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 68476-40-4 EC No.: 270-681-9 Index No.: 649-199-00-1	**Hydrocarbons, C3-4** Flam. Gas 1A (H220), Press. Gas (Comp.) (H280) Danger **Additional information:** Note: K, U	≥ 49 – 53 %
CAS No.: 123-86-4 EC No.: 204-658-1 Index No.: 607-025-00-1 REACH No.: 01-2119485493-29-XXXX	**n-butyl acetate** Flam. Liq. 3 (H226), STOT SE 3 (H336) Warning EUH066 **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 ATE (inhalation, dust/mist) 1.4 mg/L **Additional information:** EUH066	≥ 22.5 – 25 %
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	≥ 9 – 10.5 %
CAS No.: 141-78-6 EC No.: 205-500-4 Index No.: 607-022-00-5 REACH No.: 01-2119475103-46-XXXX	**ethyl acetate** Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H336) Danger EUH066 **Acute Toxicity Estimate** ATE (oral) > 4,100 mg/kg ATE (dermal) > 18,000 mg/kg ATE (inhalation, vapour) 37 mg/L ATE (inhalation, dust/mist) 22.5 mg/L **Additional information:** EUH066	≥ 8.5 – 10 %
CAS No.: 67-64-1 EC No.: 200-662-2 Index No.: 606-001-00-8 REACH No.: 01-2119471330-49-XXXX	**acetone** Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H336) Danger EUH066 **Acute Toxicity Estimate** ATE (oral) 5,800 mg/kg ATE (dermal) 20,000 mg/kg ATE (inhalation, gases) 76 ppmV ATE (inhalation, vapour) 76 mg/L ATE (inhalation, dust/mist) 76 mg/L **Additional information:** EUH066	≥ 8.5 – 10 %

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:
If in doubt or if symptoms occur, consult a doctor and show them this document. In the event of severe symptoms, call the emergency services immediately.

Following inhalation:
Remove the injured person to the open air. If breathing has stopped, give artificial respiration. If breathing is difficult, trained personnel should administer oxygen. The injured person should be placed in a warm place with fresh air and a doctor should be called immediately.

In case of skin contact:
Take off contaminated clothing. Wash with plenty of water. Get medical advice/attention. Avoid contact with contaminated clothing.

After eye contact:
Any contact lenses must be removed. One must immediately and extensively wash with water for at least 15 minutes, opening the eyelids well. A doctor must be consulted immediately.

Following ingestion:
A doctor must be consulted immediately. Do NOT induce vomiting. No medicine may be administered that has not been prescribed by a doctor.

Self-protection of the first aider:
The emergency responder assisting a person who has been exposed to a chemical substance or mixture should wear personal protective equipment. The type of equipment depends on the hazard of the substance or mixture, the nature of the exposure and the extent of the contamination. If no other specific information is given, disposable gloves should be worn in case of possible contact with biological fluids. For the type of PPE appropriate and the characteristics of the substance or mixture, see Section 8.

4.2. Most important symptoms and effects, both acute and delayed
There is no known specific information on symptoms and effects caused by this product. Based on the information currently available, there are no known cases of delayed effects following exposure to the product.

4.3. Indication of any immediate medical attention and special treatment needed
Get medical advice/attention if you feel unwell.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
Carbon dioxide, Foam, Extinguishing powder, Water mist

5.2. Special hazards arising from the substance or mixture
If overheated, there is a risk that aerosol containers will deform, burst and be hurled a considerable distance. Before approaching the fire, one must put on a protective helmet. Avoid inhalation of combustion products.

5.3. Advice for firefighters
The containers shall be cooled with water jets to prevent the decomposition of the product and the formation of potentially harmful substances. Complete fire protective clothing shall be worn at all times. Extinguishing water that is not allowed to enter the sewage pipes shall be collected. The water used for extinguishing and the fire residues shall be taken up in accordance with the regulations in force.

Personal protection:
Normal firefighting clothing, e.g. an open-circuit compressed air respirator (EN 137) firefighting kit (EN469), firefighting gloves (EN 659) and firefighting boots (HO A 29 or A30)

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
6.1.1. For non-emergency personnel
Personal precautions:
Any source of ignition (cigarettes, flames, sparks, etc.) or heat must be disposed of from the area where the product has been spilled. Remove persons without protective clothing from the site. Wear protective gloves/protective clothing/eye protection/face protection.

6.1.2. For emergency responders
No data available

6.2. Environmental precautions
Prevent the product from entering waste water, surface water, ground water.

6.3. Methods and material for containment and cleaning up
For cleaning up:
Absorb the spilled product with inert absorbent material. Ensure adequate ventilation of the affected area. Contaminated material must be disposed of in accordance with the regulations under point 13.

6.4. Reference to other sections

Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Accumulation of electrostatic charges must be avoided. It must not be sprayed into flames or onto glowing bodies. Vapours can ignite with an explosion, so prevent accumulation by keeping doors and windows open with a draught. Do not eat, drink or smoke when using the product. Do not inhale aerosol.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:

Store in a well-ventilated place. Do not expose to temperatures exceeding 50°C. Protect from heat and direct sunlight.
2-methoxy-1-methylethyl acetate: Store in an inert atmosphere away from moisture, as it is easily hydrolysable.

Storage class (TRGS 510, Germany): 2B – Aerosol dispensers and lighters

7.3. Specific end use(s)

No data 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) 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	**ethyl acetate** CAS No.: 141-78-6 EC No.: 205-500-4	① 200 ppm (734 mg/m³)
MAK (AT) from 2 Sept 2020	**ethyl acetate** CAS No.: 141-78-6 EC No.: 205-500-4	② 400 ppm (1,468 mg/m³) ⑤ (max. 4x15 min./Schicht)
IOELV (EU) from 21 Feb 2017	**ethyl acetate** CAS No.: 141-78-6 EC No.: 205-500-4	① 200 ppm (734 mg/m³) ② 400 ppm (1,468 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
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)

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
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
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

Techno Primer 400ml

Substance name	DNEL value	① DNEL type ② Exposure route
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
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	734 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	367 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	1,468 mg/m³	① DNEL worker ② Acute - inhalation, systemic effects
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	734 mg/m³	① DNEL Consumer ② Acute - inhalation, systemic effects
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	734 mg/m³	① DNEL worker ② Long-term – inhalation, local effects
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	367 mg/m³	① DNEL Consumer ② Long-term – inhalation, local effects
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	1,468 mg/m³	① DNEL worker ② Acute - inhalation, local effects
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	734 mg/m³	① DNEL Consumer ② Acute - inhalation, local effects
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	63 mg/kg	① DNEL worker ② Long-term - dermal, systemic effects
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	37 mg/kg	① DNEL Consumer ② Long-term - dermal, systemic effects
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	4.5 mg/kg	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

Substance name	DNEL value	① DNEL type ② Exposure route
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

Substance name	PNEC Value	① PNEC type
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
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
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	0.24 mg/L	① PNEC aquatic, freshwater
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	0.024 mg/L	① PNEC aquatic, marine water

Substance name	PNEC Value	① PNEC type
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	1.15 mg/kg	① PNEC sediment, freshwater
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	0.115 mg/kg	① PNEC sediment, marine water
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	0.148 mg/kg	① PNEC soil
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	1.65 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

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Considering that appropriate protective measures should always take precedence over personal protective clothing, ensure that the workplace is well ventilated by effective local exhaust ventilation. For the selection of personal protective equipment, the trusted chemical manufacturers may need to be consulted. The personal protective equipment must be CE marked to indicate its suitability for the applicable regulations.
Emergency stop showers with face-eye-rinsing are to be provided.

8.2.2. Personal protection equipment

Eye/face protection:

The use of penetration-proof goggles is recommended (ref. standard EN 16321).

Skin protection:

Hand protection:
Protective gloves recommended EN ISO 374; The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability. The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
Glove material: PVA (Polyvinyl alcohol). Thickness of the glove material: 05 mm; Breakthrough time: 480 min.

Skin protection:
Work clothing with long sleeves and category III accident protection footwear must be worn (see Regulation 2016/425 and standard EN ISO 20344). After taking off the protective clothing, one must wash with soap and water.

Respiratory protection:
If the threshold value (e.g. TLV-TWA) of the substance or one or more substances contained in the product is exceeded, it is recommended to wear a mask with filter type AX in combination with a filter type P (ref. standard EN 14387).

8.2.3. Environmental exposure controls
Emissions from manufacturing processes, including those from ventilation equipment, should be checked for compliance with environmental legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid
Form: Aerosol
Colour: various
Odour: solvent-like
flammability: No data available

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	*not applicable*		② Mixture is not polar/aprotic.
Melting point	*No data available*		
Freezing point	*No data available*		
Initial boiling point and boiling range	< 0 °C		① Reg. (EC) N° 440/2008 Annex, A 2
Flash point	< 0 °C		① ASTM D 93
Evaporation rate	*No data available*		
Auto-ignition temperature	*No data available*		
Upper/lower flammability or explosive limits	1.9 – 15 %		① Reg. (EC) N° 440/2008 Annex A 14.
Vapour pressure	*No data available*		
Vapour density	> 1		
Density	0.74 g/cm³	20 °C	① ASTM D 1298
Bulk density	*not applicable*		
Water solubility	practically insoluble		① Regulation (EC) N°440/2008 Annex, A 6
Partition coefficient: n-octanol/water	*not applicable*		
Dynamic viscosity	*No data available*		
Kinematic viscosity	*No data available*		
flammability	°C		① Reg. (EC) N. 440/2008 Annex, A 10 ② Flammable Aerosols

9.2. Other information
VOC (Directive 2010/75/EU): 87,43 %, 646,98 g/l
VOC (volatile carbon): 30,29 %, 224,14 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity
No special reaction hazards with other substances under normal conditions of use.

- n-butyl acetate: Stable under normal conditions of use and storage.
- acetone: Decomposes under the influence of heat.
- Ethyl acetate: Slow decomposition to acetic acid and ethanol under the influence of light, air and water.
- 2-methoxy-1-methylethyl acetate: Stable under normal conditions of use and storage. Can slowly develop peroxides with air, which explode when the temperature is increased.

10.2. Chemical stability
Stable under normal conditions of use and storage.

10.3. Possibility of hazardous reactions
Under normal conditions of use and storage, no hazardous reactions are foreseen.

- n-butyl acetate: Stable under normal conditions of use and storage.
- acetone: Explosion hazard in contact with: Bromine trifluoride, disoxygen difluoride, hydrogen peroxide, nitrosyl chloride, 2-methylbuta-1,3-diene, nitromethane, nitrosyl perchlorate. May react dangerously with: Potassium tert-butanolate, alkaline hydroxides, bromine, bromoform, isoprene, sodium, sulphur dioxide, chromium trioxide, chromium (VI) oxide dichloride, nitric acid, chloroform, peroxomonosulphuric acid, phosphorus oxychloride, chromosulphuric acid, fluorine, strong oxidising agents, strong reducing agents. Develops flammable gases on contact with: Nitrosylperchlorat
- Ethyl acetate: Explosion hazard in contact with: Alkali metals, hydrides, oleum. May react violently with: Fluorine, strong oxidising agents, chlorosulfonic acid, potassium tert-butanolate. Forms explosive mixtures with: air
- 2-methoxy-1-methylethyl acetate: May react violently with: oxidising substances, strong acids, alkali metals.

10.4. Conditions to avoid
Avoid heating.

- n-butyl acetate: Avoid exposure to: Humidity Heat sources, open flames
- acetone: Avoid exposure to: Heat sources, open flames
- Ethyl acetate: Avoid exposure to: Light, Heat sources, open flames

10.5. Incompatible materials
Strong reducing and oxidising agents, strong bases and acids, materials at high temperatures.

- n-butyl acetate: Incompatible materials: Oxidizing agent, Peroxides, strong acids, Amines, strong base
- acetone: Incompatible materials: Acids, Oxidising substances
- Ethyl acetate: Incompatible with: Acids, Bases, strong oxidants, Chlorosulfonic acid.
- 2-methoxy-1-methylethyl acetate: Incompatible materials: Oxidising substances, strong acids, Alkali metals

10.6. Hazardous decomposition products
- n-butyl acetate: Carbon oxides
- acetone: Ketene, irritants

SECTION 11: Toxicological information

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

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)
LC_{50} Acute inhalation toxicity (dust/mist): 1.4 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)

ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4
LD_{50} oral: >4,100 mg/kg (Rat)
LD_{50} dermal: >18,000 mg/kg (Rabbit)
LC_{50} Acute inhalation toxicity (vapour): 37 mg/L 4 h
LC_{50} Acute inhalation toxicity (dust/mist): 22.5 mg/L 6 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, vapour): 76 mg/L
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)

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:
Repeated exposure may cause skin dryness or cracking.

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:
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

Other information:
According to the available data, the product does not contain any substances included in the main European lists of potential or suspected endocrine disruptors with effects on human health to be assessed.

SECTION 12: Ecological information

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12.1. Toxicity

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, Elritze)
EC_{50}: 44 mg/L 2 d (Daphnia magna)
NOEC: 1,200 mg/L 1 d (Algae/water plant, anaerober Schlamm)
LC_{50}: 32 mg/L 2 d (crustaceans)
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
NOEC: 1,000 mg/L 3 d (Algae/water plant, Grünalge)
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4
LC_{50}: 230 mg/L 4 d (fish, Pimephales promelas)
EC_{50}: 260 mg/L 2 d (crustaceans, Daphnia)
NOEC: 2.4 mg/L (crustaceans, Daphnia)
NOEC: >100 mg/L 3 d (Algae/water plant, Scenedesmus substicatus)
LC_{50}: 230 mg/L 4 d (Pimephales promelas)
EC_{50}: 165 mg/L 2 d (crustaceans, Daphnia magna)
NOEC: 2.4 mg/L (crustaceans, Daphnia pulex)
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)
NOEC: 2,212 mg/L (crustaceans, Daphnia pulex)

Additional ecotoxicological information:
Use in accordance with good working practices and ensure that the product does not enter the environment. Notify the relevant authorities if the product has entered water courses or if the product has contaminated the soil or vegetation.

12.2. Persistence and degradability

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	
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	
Biodegradation: Yes, rapidly	
acetone CAS No.: 67-64-1 EC No.: 200-662-2	
Biodegradation: Yes, rapidly	

12.3. Bioaccumulative potential

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	
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	
Log K_{OW}: 0.68	
Bioconcentration factor (BCF): 30	
acetone CAS No.: 67-64-1 EC No.: 200-662-2	
Log K_{OW}: -0.24	

Partition coefficient: n-octanol/water:
not applicable

12.4. Mobility in soil
No data available

12.5. 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: —	
ethyl acetate CAS No.: 141-78-6 EC No.: 205-500-4	
Results of PBT and vPvB assessment: —	
acetone CAS No.: 67-64-1 EC No.: 200-662-2	
Results of PBT and vPvB assessment: —	
Hydrocarbons, C3-4 CAS No.: 68476-40-4 EC No.: 270-681-9	
Results of PBT and vPvB assessment: —	

Based on the available information, the product does not contain any PBT or vPvB substances in content percentages ≥ 0.1%.

12.6. Endocrine disrupting properties
According to the available data, the product does not contain any substances included in the main European lists of potential or suspected endocrine disruptors with effects on human health to be assessed.

12.7. Other adverse effects
No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Reuse if possible. Product residues are to be considered as hazardous waste. The hazardousness of the waste partially containing this product must be evaluated on the basis of the legal provisions in force. Disposal must be entrusted to a company authorised for waste management, taking into account national and, where applicable, local regulations. Disposal of waste arising from the use or distribution of this product must be in accordance with health and safety regulations. See Section 8 for possible need for PPE.

Waste treatment options

Appropriate disposal / Package:

Contaminated packaging material must be sent for recycling or disposal in accordance with the country's waste management regulations.

13.2. Additional information

The transport of the waste may be subject to ADR.

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	No data available	 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 **Classification code:** 5F **Tunnel restriction code:** (D)	No data available	**Special Provisions:** 63 | 190 | 277 | 327 | 344 | 381 | 959 **Limited quantity (LQ):** 1 L **EmS-No.:** F-D, S-U	**Special Provisions:** A145 | A167 | 802 **Limited quantity (LQ):** Y203 **Excepted Quantities (EQ):** E0 **Remark:** IATA-Verpackungsanweisung - Cargo: 203 IATA Maximum Quantity - Cargo: 150 kg IATA Packing Instructions - Passenger: 203 IATA Maximum Quantity - Passenger: 75 kg

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Restrictions on use:

Seveso category Directive 2012/18/EU P3a FLAMMABLE AEROSOLS
Restrictions on the product or substances according to Annex XVII Regulation (EC) 1907/2006
Product: point 40
Substances contained: point 75
Regulation (EU) 2019/1148 (marketing and use of explosives precursors)

Regulated explosives precursor The acquisition, transfer, possession or use of the regulated explosives precursor in question by members of the general public is subject to reporting requirements under Article 9. All suspicious transactions and significant disappearances and thefts must be reported to the relevant national contact point.
Substances according to Candidate List (Art. 59 REACH): Based on the available information, the product does not contain SVHC substances in percentages ≥ 0.1%.
Substances subject to authorisation (Annex XIV REACH): none
Substances subject to export notification Regulation (EU) 649/2012: none
Substances subject to the Rotterdam Convention: none
Substances subject to the Stockholm Convention: none
Preventive medical check-ups: No precautionary examinations are required when working with this product. This is only on condition that the results of the risk assessment prove that there is only a moderate risk to the safety and health of workers and that the measures provided for by Directive 98/24/EC are sufficient to limit the risk.

Other regulations (EU):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive], 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 2004/42/EC on the limitation of emissions of volatile organic compounds:

Volatile organic compounds (VOC) content in percent by weight: 98.78 Vol-%

15.1.2. National regulations

No data available

15.2. Chemical Safety Assessment

For the following substances of this mixture a chemical safety assessment has been carried out: n-butyl acetate, Acetone, ethyl acetate

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
11.1.	Information on hazard classes as defined in Regulation (EC) No 1272/2008
12.1.	Toxicity
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture
15.3.	Additional information
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
ASTM	American Society for Testing and Materials
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
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
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Dangerous goods regulations for transport by rail
SCL	Specific concentration limit
TRGS	Technische Regeln für Gefahrstoffe
TWA	Time Weighted Average
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.	On basis of test data.
Serious eye damage/eye irritation *(Eye Irrit. 2)*	H319: Causes serious eye irritation.	Calculation method.
STOT-single exposure *(STOT SE 3)*	H336: May cause drowsiness or dizziness.	Calculation method.

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.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

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

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.