



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008
This SDS is for generic information purposes and does not reflect required country specific information for OEL

OPN-Pickling-Spray
Supercedes date 23.10.2023

Revision date 19.08.2025
Revision Number 1.01

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

1.1. Product identifier

Product Name OPN-Pickling-Spray
Article number 60749
Unique formula identifier (UFI) GK7E-F585-400R-KFDV

Other means of identification

Pure substance/mixture Mixture

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

Recommended use Removers (paint-, glue-, wall paper-, sealant-remover)
Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

OPN-CHEMIE GmbH
In der Au 14
57290 Neunkirchen / Germany
www.opn-chemie.de

Further information obtainable from

Barbara Angelika Gros-Petri
E-Mail (competent person) baerbel.petri@opn-chemie.de

1.4. Emergency telephone number

Emergency information service Poison Information Center Freiburg +49(0)761/19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation	Category 2 - (H319)
Specific target organ toxicity (single exposure)	Category 3 - (H336)
Category 3 Narcotic effects	
Aerosols	Category 1 - (H222, H229)

2.2. Label elements

Hazardous ingredients for labelling

Contains: Acetone; n-Butyl acetate; Propylene glycol monomethyl ether; Cyclohexanone

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Signal word
Danger

Hazard statements

H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.

Precautionary Statements - EU (§28, 1272/2008)

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
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.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash skin thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear eye protection/ face protection.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 - Call a POISON CENTER or doctor if you feel unwell.
P337 + P313 - If eye irritation persists: Get medical advice/attention.
P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P501 - Dispose of contents / container in accordance with national regulations of the disposal.

EU Specific Hazard Statements

EUH066 - Repeated exposure may cause skin dryness or cracking.

Additional labelling requirements

Buildup of explosive mixtures possible without sufficient ventilation.

2.3. Other hazards

In case of insufficient ventilation and/or through use, the formation of a explosive/highly flammable mixture is possible. Causes mild skin irritation.

PBT & vPvB

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	EC No (EU Index No).	CAS No..	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	REACH registration number
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Dimethyl ether 40 - <80 %	204-065-8 (603-019-00-8)	115-10-6	Flam. Gas 1 (H220) Press. Gas (H280)	-	-	-	01-2119472128-37-XXXX
Acetone >25 - <40 %	200-662-2 (606-001-00-8)	67-64-1	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225) (EUH066)	-	-	-	01-2119471330-49-XXXX
n-Butyl acetate 10 - <20 %	204-658-1 (607-025-00-1)	123-86-4	STOT SE 3 (H336) Flam. Liq. 3 (H226) (EUH066) [B]	-	-	-	01-2119485493-29-XXXX
Propylene glycol monomethyl ether 5 - <10 %	203-539-1 (603-064-00-3)	107-98-2	STOT SE 3 (H336) Flam. Liq. 3 (H226)	-	-	-	01-2119457435-35-xxxx
Diethylene glycol monobutyl ether 1 - <2.5 %	203-961-6 (603-096-00-8)	112-34-5	Eye Irrit. 2 (H319)	-	-	-	01-2119475104-44-XXXX
Cyclohexanone 1 - <2.5 %	203-631-1 (606-010-00-7)	108-94-1	Acute Tox. 4 (H332) Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) STOT SE 3 (H335) Flam. Liq. 3 (H226)	-	-	-	01-2119453616-35-XXXX
Formic acid 0.1 - <0.5 %	200-579-1 (607-001-00-0)	64-18-6	Flam. Liq. 3 (H226) Acute Tox. 4 (H302) Acute Tox. 3 (H331) Skin Corr. 1A (H314)	Eye Irrit. 2 :: 2%<=C<10% Skin Corr. 1A :: C>=90% Skin Corr. 1B :: 10%<=C<90% Skin Irrit. 2 :: 2%<=C<10%	-	-	01-2119491174-37-xxxx
reaction mass of 5-chloro-2-methyl-2H-iso thiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1) [C(M)IT/MIT] <0.0015 %	611-341-5	55965-84-9	Acute Tox. 3 (H301) Acute Tox. 2 (H310) Acute Tox. 2 (H330) Skin Corr. 1C (H314) Eye Dam. 1 (H318) Skin Sens. 1A (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH071)	Eye Dam. 1 :: C>=0.6% Eye Irrit. 2 :: 0.06%<=C<0.6% Skin Corr. 1C :: C>=0.6% Skin Irrit. 2 :: 0.06%<=C<0.6% Skin Sens. 1 :: C>=0.0015%	100	100	-

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

Classification according to Regulation (EC) No. 1272/2008 [CLP] - Notes
[B] - Substance with a Community workplace exposure limit

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	EC No (EU Index No)	CAS No.	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Dimethyl ether	204-065-8 (603-019-00-8)	115-10-6	-	-	-	-	-
Acetone	200-662-2 (606-001-00-8)	67-64-1	5800	-	-	-	-
n-Butyl acetate	204-658-1 (607-025-00-1)	123-86-4	-	-	0.74	-	-
Propylene glycol	203-539-1	107-98-2	-	-	-	-	-

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Chemical name	EC No (EU Index No)	CAS No.	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
monomethyl ether	(603-064-00-3)						
Diethylene glycol monobutyl ether	203-961-6 (603-096-00-8)	112-34-5	-	-	-	-	-
Cyclohexanone	203-631-1 (606-010-00-7)	108-94-1	1535	1100	-	11	-
Formic acid	200-579-1 (607-001-00-0)	64-18-6	730	-	-	3	-
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT]	611-341-5	55965-84-9	66	141	0.17	-	-

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Notes

See section 16 for more information

Chemical name	Notes
Dimethyl ether - 115-10-6	U
Formic acid - 64-18-6	B
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT] - 55965-84-9	B

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. IF exposed or concerned: Get medical advice/attention.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a doctor.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid contact with skin, eyes or clothing.

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

Symptoms	May cause redness and tearing of the eyes. Burning sensation. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and
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vomiting. Prolonged contact may cause redness and irritation.

Effects of Exposure No information available.

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

Note to doctors No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO₂). Water spray.

Unsuitable extinguishing media Full water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers may explode when heated.

Hazardous combustion products Carbon oxides. Carbon dioxide (CO₂).

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. Avoid breathing dust/fume/gas/mist/vapours/spray.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Flood with water to complete polymerization and scrape off floor.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

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6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use personal protection equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use spark-proof tools and explosion-proof equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Keep in an area equipped with sprinklers. Do not puncture or incinerate cans. Contents under pressure. In case of rupture. Avoid breathing vapours or mists. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. In case of insufficient ventilation, wear suitable respiratory equipment.

General hygiene considerations

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Protect from sunlight. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other chemicals. Keep/store only in original container. Store in a dry place. Store in a closed container.

7.3. Specific end use(s)

Specific use(s)

Removers (paint-, glue-, wall paper-, sealant-remover).

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Other information

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Only European Community Occupational Exposure Limits will be shown in this document. Please refer to regional SDS for further information.

Chemical name	European Union
Dimethyl ether 115-10-6	TWA: 1000 ppm TWA: 1920 mg/m ³
Acetone 67-64-1	TWA: 500 ppm TWA: 1210 mg/m ³
n-Butyl acetate 123-86-4	TWA: 241 mg/m ³ TWA: 50 ppm STEL: 723 mg/m ³

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Propylene glycol monomethyl ether 107-98-2	STEL: 150 ppm TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 568 mg/m ³ *
Diethylene glycol monobutyl ether 112-34-5	TWA: 10 ppm TWA: 67.5 mg/m ³
Cyclohexanone 108-94-1	TWA: 10 ppm TWA: 40.8 mg/m ³ STEL: 20 ppm STEL: 81.6 mg/m ³ *
Formic acid 64-18-6	TWA: 5 ppm TWA: 9 mg/m ³

Derived No Effect Level (DNEL) No information available

Derived No Effect Level (DNEL)			
Dimethyl ether (115-10-6)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	1894 mg/m ³	

Acetone (67-64-1)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Long term Systemic health effects worker	Dermal	186 mg/kg bw/d	
Short term Local health effects worker	Inhalation	2420 mg/m ³	
Long term Systemic health effects worker	Inhalation	1210 mg/m ³	

n-Butyl acetate (123-86-4)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	300 mg/m ³	
worker Short term Systemic health effects	Inhalation	600 mg/m ³	
worker Long term Local health effects	Inhalation	300 mg/m ³	
worker Short term Local health effects	Inhalation	600 mg/m ³	
worker Long term Systemic health effects	Dermal	11 mg/kg bw/d	

Propylene glycol monomethyl ether (107-98-2)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker	Inhalation	553.5 mg/m ³	

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Short term Systemic health effects			
worker Short term Local health effects	Inhalation	553.5 mg/m ³	
worker Long term Systemic health effects	Dermal	183 mg/kg bw/d	
worker Long term Systemic health effects	Inhalation	369 mg/m ³	

Cyclohexanone (108-94-1)

Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	100 mg/m ³	
worker Short term Systemic health effects	Inhalation	80 mg/m ³	
worker Long term Local health effects	Inhalation	40 mg/m ³	
worker Short term Local health effects	Inhalation	80 mg/m ³	
worker Long term Systemic health effects	Dermal	4 mg/kg bw/d	
worker Short term Systemic health effects	Dermal	4 mg/kg bw/d	

Derived No Effect Level (DNEL)

Dimethyl ether (115-10-6)

Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Inhalation	471 mg/m ³	

Acetone (67-64-1)

Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Inhalation	200 mg/m ³	
Consumer Long term Systemic health effects	Dermal	62 mg/kg bw/d	
Consumer Long term Systemic health effects	Oral	62 mg/kg bw/d	

n-Butyl acetate (123-86-4)

Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer	Inhalation	35.7 mg/m ³	

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Long term Systemic health effects			
Consumer Short term Systemic health effects	Inhalation	300 mg/m ³	
Consumer Long term Local health effects	Inhalation	35.7 mg/m ³	
Consumer Short term Local health effects	Inhalation	300 mg/m ³	
Consumer Long term Systemic health effects	Dermal	6 mg/kg bw/d	
Consumer Short term Systemic health effects	Dermal	6 mg/kg bw/d	
Consumer Long term Systemic health effects	Oral	2 mg/kg bw/d	

Propylene glycol monomethyl ether (107-98-2)

Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Dermal	78 mg/kg bw/d	
Consumer Long term Systemic health effects	Inhalation	43.9 mg/m ³	
Consumer Long term Systemic health effects	Oral	33 mg/kg bw/d	

Cyclohexanone (108-94-1)

Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Inhalation	20 mg/m ³	
Consumer Long term Systemic health effects	Dermal	20 mg/kg bw/d	
Consumer Long term Systemic health effects	Oral	5 mg/kg bw/d	

Predicted No Effect Concentration (PNEC) No information available.
(PNEC)

Predicted No Effect Concentration (PNEC)

Dimethyl ether (115-10-6)

Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.155 mg/l
Marine water	0.016 mg/l
Microorganisms in sewage treatment	160 mg/l
Freshwater sediment	0.681 mg/kg dry weight
Soil	0.45 mg/kg dry weight

Acetone (67-64-1)

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Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	10.6 mg/l
Freshwater - intermittent	21 mg/l
Marine water	1.06 mg/l
Microorganisms in sewage treatment	100 mg/l
Freshwater sediment	30.4 mg/kg dry weight
Marine water	3.04 mg/kg dry weight
Soil	29.5 mg/kg dry weight

n-Butyl acetate (123-86-4)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.18 mg/l
Marine water	0.018 mg/l
Freshwater - intermittent	0.36 mg/l
Sewage treatment plant	35.6 mg/l
Freshwater sediment	0.981 mg/l
Marine sediment	0.0981 mg/l
Soil	0.0903 mg/l

Propylene glycol monomethyl ether (107-98-2)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	10 mg/l
Marine water	1 mg/l
Sewage treatment plant	100 mg/l
Freshwater sediment	52.3 mg/kg dry weight
Marine sediment	5.2 mg/kg dry weight
Soil	4.59 mg/kg dry weight

Cyclohexanone (108-94-1)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.0329 mg/l
Marine water	0.00329 mg/l
Freshwater sediment	0.168 mg/kg
Marine sediment	0.0168 mg/kg
Soil	0.0143 mg/kg

8.2. Exposure controls

Engineering controls	Ensure adequate ventilation, especially in confined areas. Vapours/aerosols must be exhausted directly at the point of origin.
Personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.
Hand protection	Wear suitable gloves. Glove thickness > 0.7mm. Butyl rubber. Nitrile rubber. The breakthrough time for the mentioned glove material is in general greater than 480 min. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374
Skin and body protection	Wear appropriate personal protective clothing to prevent skin contact.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. Wear a respirator conforming to EN 140 with Type A filter or better.
Recommended filter type:	Organic gases and vapours filter conforming to EN 14387.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Aerosol
Colour	Pink

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Odour	Characteristic.	
Property	Values	Remarks • Method
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	Not applicable, Aerosol .	Not applicable, Aerosol
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	Not applicable, Aerosol .	Not applicable, Aerosol
Autoignition temperature	>200 °C	None known
Decomposition temperature		None known
pH	No data available	Not applicable. Insoluble in water.
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	
Water solubility	Insoluble in water.	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Density	0.77 g/cm ³	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	
9.2. Other information		
Solid content (%)	0	
VOC content		approx 749,8 g/L

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.
Sensitivity to static discharge Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Heating causes rise in pressure with risk of bursting.

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10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks. Keep away from open flames, hot surfaces and sources of ignition. Extremes of temperature and direct sunlight.

10.5. Incompatible materials

Incompatible materials Incompatible with oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None under normal use conditions. Stable under recommended storage conditions.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Product Information

Inhalation	Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. May cause irritation of respiratory tract. May cause drowsiness or dizziness.
Eye contact	Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
Skin contact	Prolonged contact may cause redness and irritation. Causes mild skin irritation.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms May cause redness and tearing of the eyes. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Prolonged contact may cause redness and irritation.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	80,034.60 mg/kg
ATEmix (dermal)	57,353.80 mg/kg
ATEmix (inhalation-gas)	>20000 ppm
ATEmix (inhalation-dust/mist)	45.96 mg/l
ATEmix (inhalation-vapour)	308.50 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Dimethyl ether	-	-	=164000 ppm (Rattus) 4 h
Acetone	=5800 mg/kg (Rattus) 3000 mg/Kg (mouse)	>15800 mg/Kg (Rattus)	=79 mg/l(Rattus) 4 h
n-Butyl acetate	>10650 mg/kg (Rattus)	> 17600 mg/kg (Oryctolagus cuniculus)	=390 ppm (Rattus) 4 h
Propylene glycol monomethyl ether	>3500 mg/Kg (Rattus)	>2000 mg/Kg (Rattus)	>7559 ppm (Rattus) 6 h
Diethylene glycol monobutyl	LD50: 2410 mg/kg (mouse)	LD50: 2764 mg/kg	-

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ether	OECD 401	(Oryctolagus cuniculus) OECD 402	
Cyclohexanone	=1535 mg/kg (Rattus)	= 947 mg/kg (Oryctolagus cuniculus)	=8000 ppm (Rattus) 4 h
Formic acid	=730 mg/kg (Rattus) (OECD 401)	>2000 mg/Kg (Rattus)	=7.85 mg/L (Rattus) 4 hr
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)]IT/MIT]	66 mg/kg (Rat)	LD50 = 8141 mg/kg (Rat) OECD 402	= 0.33 mg/L (Rat) 4h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes mild skin irritation.

n-Butyl acetate (123-86-4)					
Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 404: Acute Dermal Irritation/Corrosion	Rabbit	Dermal		4 hours	Non-irritant

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

Acetone (67-64-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	eye			irritant

n-Butyl acetate (123-86-4)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	Corneal	0.1 mL		Product score 1 Non-irritant

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.

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11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea	M-Factor	M-Factor (long-term)
Dimethyl ether 115-10-6	-	LC50: >4.1g/L (96h, Poecilia reticulata)	-	> 4400 mg/L (Daphnia) (NEN 6501)		
Acetone 67-64-1	-	LC50 96 h 4.74 - 6.33 mL/L (Oncorhynchus mykiss)	EC50 = 14500 mg/L 15 min	EC50 48 h 10294 - 17704 mg/L (Daphnia magna Static)		
n-Butyl acetate 123-86-4	EC50: =674.7mg/L (72h, Desmodesmus subspicatus)	LC50 96 h 17 - 19 mg/L (Pimephales promelas flow-through)	EC50 = 70.0 mg/L 5 min EC50 = 82.2 mg/L 15 min EC50 = 959 mg/L 18 h EC50 = 98.9 mg/L 30 min	EC50 48 h = 44 mg/L (Daphnia magna)		
Propylene glycol monomethyl ether 107-98-2	-	LC50: 4600 - 10000mg/L (96h, Leuciscus idus) LC50: =20.8g/L (96h, Pimephales promelas)	-	EC50: =23300mg/L (48h, Daphnia magna)		
Diethylene glycol monobutyl ether 112-34-5	EC50: >100mg/L (96h, Desmodesmus subspicatus)	LC50: =1300mg/L (96h, Lepomis macrochirus)	-	EC50: =2850mg/L (24h, Daphnia magna) EC50: >100mg/L (48h, Daphnia magna)		
Cyclohexanone 108-94-1	EC50: =20mg/L (96h, Chlorella vulgaris)	LC50 96 h 481 - 578 mg/L (Pimephales promelas flow-through)	EC50 = 18.5 mg/L 5 min EC50 = 21.3 mg/L 10 min EC50 = 25 mg/L 5 min	EC50: =800mg/L (24h, Daphnia magna)		
Formic acid 64-18-6	EC50: =25mg/L (96h, Desmodesmus subspicatus) EC50: =26.9mg/L (72h, Desmodesmus	LC50: =175mg/L (24h, Lepomis macrochirus)	EC50 = 46.7 mg/L 17 h	EC50: =120mg/L (48h, Daphnia magna) EC50: 138 - 165.6mg/L (48h, Daphnia magna)		

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	subspicatus)					
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT] 55965-84-9	EC50 (72h) = 0.048 mg/L (Pseudokirchneriella subcapitata) (OECD 201)	EC50 (96h) = 0.22 mg/L (Oncorhynchus mykiss) (OECD 211)	-	EC50 (48h) = 0.1 mg/L (Daphnia magna) (OECD 202)	100	100

12.2. Persistence and degradability

Persistence and degradability No information available.

Acetone (67-64-1)

Method	Exposure time	Value	Results
OECD Test No. 301B: Ready Biodegradability: CO2 Evolution Test (TG 301 B)	28 days	biodegradation	91 % Readily biodegradable

n-Butyl acetate (123-86-4)

Method	Exposure time	Value	Results
OECD Test No. 301D: Ready Biodegradability: Closed Bottle Test (TG 301 D)	28 days	83%	Readily biodegradable

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT] (55965-84-9)

Method	Exposure time	Value	Results
OECD Test No. 301B: Ready Biodegradability: CO2 Evolution Test (TG 301 B)	28 days	biodegradation	Not readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Dimethyl ether	-0.18
Acetone	-0.24
n-Butyl acetate	2.3
Propylene glycol monomethyl ether	1
Diethylene glycol monobutyl ether	1
Cyclohexanone	0.86
Formic acid	-1.9
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT]	0.7

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration.

Chemical name	PBT and vPvB assessment
Dimethyl ether	The substance is not PBT / vPvB
Acetone	The substance is not PBT / vPvB
n-Butyl acetate	The substance is not PBT / vPvB
Propylene glycol monomethyl ether	The substance is not PBT / vPvB

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Diethylene glycol monobutyl ether	The substance is not PBT / vPvB
Cyclohexanone	The substance is not PBT / vPvB
Formic acid	The substance is not PBT / vPvB
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT]	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.
European Waste Catalogue	16 05 04* gases in pressure containers (including halons) containing dangerous substances 15 01 04 metallic packaging
Other information	Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1 UN number or ID number	UN1950
14.2 UN proper shipping name	Aerosols
14.3 Transport hazard class(es)	2
Labels	2.1
14.4 Packing group	Not regulated
Description	UN1950, Aerosols, 2, (D)
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	190, 327, 344, 625
Classification code	5F
Tunnel restriction code	(D)
Limited quantity (LQ)	1 L

IMDG

14.1 UN number or ID number	UN1950
14.2 UN proper shipping name	Aerosols
14.3 Transport hazard class(es)	2.1
14.4 Packing group	Not regulated
Description	UN1950, Aerosols, 2.1, (0°C c.c.)
14.5 Marine pollutant	NP
14.6 Special precautions for user	
Special Provisions	63,190, 277, 327, 344, 381, 959
Limited Quantity (LQ)	See SP277
EmS-No.	F-D, S-U

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14.7 Maritime transport in bulk according to IMO instruments

Transport in bulk according to Annex II of MARPOL and the IBC Code Not applicable

Air transport (ICAO-TI / IATA-DGR)

14.1 UN number or ID number UN1950
14.2 UN proper shipping name Aerosols, flammable
14.3 Transport hazard class(es) 2.1
14.4 Packing group Not regulated
Description UN1950, Aerosols, flammable, 2.1
14.5 Environmental hazards No
14.6 Special precautions for user
Special Provisions A145, A167, A802
Limited quantity (LQ) 30 kg G
ERG Code 10L

Section 15: REGULATORY INFORMATION

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

European Union

Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

SVHC: Substances of Very High Concern for Authorisation:

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Chemical name	CAS No.	Restricted substance per REACH Annex XVII
Diethylene glycol monobutyl ether	112-34-5	Use restricted. See entry 55. Use restricted. See entry 75.

Substance subject to authorisation per REACH Annex XIV

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Export Notification requirements

This product does not contain substances which are regulated pursuant to Regulation (EC) No. 649/2012 of the European parliament and of the council concerning the export and import of dangerous chemicals above the level that triggers a labeling obligation under Regulation (EC) No 1272/2008. Therefore this product is not subject to prior informed consent notification.

Dangerous substance category per Seveso Directive (2012/18/EU)

P3a - FLAMMABLE AEROSOLS

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

Persistent Organic Pollutants

Not applicable

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REGULATION (EU) 2019/1148 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on the marketing and use of explosives precursors

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point. This product contains:

Chemical name	Reporting of suspicious transactions, disappearances and thefts	Restricted	Registration
Acetone - 67-64-1	Regulated		

Regulation (EC) No. 648/2004 (Detergents regulation)

Labelling for contents according to regulation (EC) No. 648/2004

non-ionic surfactants	< 5%
Formic acid, reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT]	

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
Dimethyl ether 115-10-6	RG 84
Acetone 67-64-1	RG 84
n-Butyl acetate 123-86-4	RG 84
Propylene glycol monomethyl ether 107-98-2	RG 84
Diethylene glycol monobutyl ether 112-34-5	RG 84
Cyclohexanone 108-94-1	RG 84
Formic acid 64-18-6	RG 5, RG 14, RG 15, RG 15bis, RG 20bis RG 15bis, RG 74

Germany

Ordinance on Industrial Safety and Health - Germany - BetrSichV

No flammable liquids in accordance with BetrSichV

Water hazard class (WGK) slightly hazardous to water (WGK 1)

TRGS - 510 Storage Class Storage Class 2B : Aerosols
TA Luft (German Air Pollution Control Regulation)

Netherlands

List of Carcinogenic, mutagenic and reproductive toxin substances in accordance with Inspectorate SZW (Netherlands)

Not Listed

Denmark

Registration number(s) (P-no.) No information available

Norway

Registration number(s) (PRN-no.) No information available

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15.2. Chemical safety assessment

Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at >10 tpa. No Chemical Safety Assessment has been carried out for this mixture.

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H220 - Extremely flammable gas
H225 - Highly flammable liquid and vapour
H226 - Flammable liquid and vapour
H280 - Contains gas under pressure; may explode if heated
H301 - Toxic if swallowed
H302 - Harmful if swallowed
H310 - Fatal in contact with skin
H312 - Harmful in contact with skin
H314 - Causes severe skin burns and eye damage
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H330 - Fatal if inhaled
H331 - Toxic if inhaled
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Notes relating to the identification, classification and labelling of substances

Note B: Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'.

In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis

Note U (Table 3): When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case. The following codes are assigned:

Press. Gas (Comp.)

Press. Gas (Liq.)

Press. Gas (Ref. Liq.)

Press. Gas (Diss.)

Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2)

SVHC: Substances of Very High Concern for Authorisation:

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances

vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

STOT RE: Specific target organ toxicity - Repeated exposure

STOT SE: Specific target organ toxicity - Single exposure

EWC: European Waste Catalogue

LOW: List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IATA: International Air Transport Association

ICAO: ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air

IMDG: International Maritime Dangerous Goods

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

Legend SECTION 8: Exposure controls/personal protection

TWA TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

AGW Occupational exposure limit value

BGW

Biological limit value

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Ceiling Maximum limit value Sk* Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method
Flammable aerosol	On basis of test data

Key literature references and sources for data used to compile the SDS

European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGl(s))
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
NIOSH (National Institute for Occupational Safety and Health)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set

Prepared By Product Safety & Regulatory Affairs

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Revision note SDS sections updated 2 5 8 11

Training Advice No information available

Further information No information available

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

Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and Regulation (EC) No. 1272/2008

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet