

SAFETY DATA SHEET ACCORDING TO REGULATION (EC)

1907/2006 **Product name: Lackspray 82157xx**

Creation date: 11.10.2021, Revision: 17.03.2023, version: 1.5

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name

Lackspray 82157xx

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

Relevant identified uses

Paint.

Uses advised against

No information.

1.3 Details of the supplier of the safety data sheet

Supplier

plus6 Werkzeuge GmbH & Co.KG

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DE-06917 Jessen

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1.4 Emergency Telephone Number

Emergency

112

Supplier

Giftnotruf Berlin +49 (0) 30/30686 700

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Aerosol 1; H222 Extremely flammable aerosol.

Aerosol 1; H229 Pressurised container: May burst if heated.

Eye Irrit. 2; H319 Causes serious eye irritation.

STOT SE 3; H336 May cause drowsiness or dizziness.

2.2 Label elements

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



Signal word: DANGER

- H222 Extremely flammable aerosol.
- H229 Pressurised container: May burst if heated.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- EUH066 Repeated exposure may cause skin dryness or cracking.
- 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.
- P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

Contains:
acetone

2.3 Other hazards

PBT/vPvB

No information.

Endocrine disrupting properties

No information.

Additional information

Vapors can form an explosive mixture with air.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

For mixtures see 3.2.

3.2 Mixtures

Name	CAS EC Index Reach	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Conc. Limits	Notes for substances
acetone	67-64-1 200-662-2 606-001-00-8 01-2119471330-49	25-50	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066	/	/
isobutane	75-28-5 200-857-2 601-004-00-0 01-2119485395-27	10-25	Flam. Gas 1; H220 Press. Gas; H280	/	C, U
dimethyl ether	115-10-6 204-065-8 603-019-00-8 01-2119472128-37	10-25	Flam. Gas 1; H220 Press. Gas; H280	/	U
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	10-25	Flam. Liq. 3; H226 STOT SE 3; H336 EUH066	/	/

propane	74-98-6 200-827-9 601-003-00-5 01-2119486944-21	2,5-10	Flam. Gas 1; H220 Press. Gas; H280	/	U
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7 01-2119475791-29	2,5-10	Flam. Liq. 3; H226	/	/
2-ethoxy-1-methylethyl acetate	54839-24-6 259-370-9 603-177-00-8	2,5-10	Flam. Liq. 3; H226 STOT SE 3; H336	/	/
xylene	1330-20-7 215-535-7 601-022-00-9	2,5-<10	Flam. Liq. 3; H226 Acute Tox. 4; H312 Skin Irrit. 2; H315 Acute Tox. 4; H332	/	C
propan-2-ol	67-63-0 200-661-7 603-117-00-0 01-2119457558-25	2,5-10	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	/	/
butyl glycollate	7397-62-8 230-991-7 -	<1	Eye Dam. 1; H318 Repr. 2; H361	/	/

Notes for substances

C	<p>Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers.</p> <p>In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.</p>
U	<p>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:</p> <p>Press. Gas (Comp.) Press. Gas (Liq.) Press. Gas (Ref. Liq.) Press. Gas (Diss.)</p> <p>Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2).</p>

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. No action shall be taken involving any personal risk or without suitable training.

Following inhalation

If symptoms occur, seek medical advice. Remove patient to fresh air - move out of dangerous area. Keep at rest in a position comfortable for breathing. Obtain professional medical help! If breathing is irregular or respiratory arrest occurs provide artificial respiration. Seek medical help immediately. In case of unconsciousness bring patient into stable side position and seek medical attention.

Following skin contact

Take off all contaminated clothing. Areas of the body that have come into contact with the product must be rinsed with water and soap. If symptoms develop and persist, seek medical attention. Wash contaminated clothes and shoes before reuse.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. If irritation persists, seek professional medical attention.

Following ingestion

Not likely. Accidental ingestion: Do not induce vomiting without prior consultation with a doctor. In case of doubt or if feeling unwell seek medical help. Show the physician the safety data sheet or label.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

Vapours may cause drowsiness and dizziness. Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation. Coughing, sneezing, nasal discharge, labored breathing.

Following skin contact

Contact with skin may cause irritation (redness, itching). Repeated exposure may cause dry skin or cracked skin.

Following eye contact

Strongly irritates the eyes. Redness, tearing, pain.

Following ingestion

Ingestion is unlikely because it is an aerosol. Accidental ingestion: May cause abdominal discomfort. May cause nausea/vomiting and diarrhea. Irritates mucous membranes in the mouth, throat, esophagus and in gastrointestinal area.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂).

Fire extinguishing powder.

Alcohol-resistant foam.

Water spray. Extinguish large fires with water spray or alcohol-resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Full water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of a fire toxic gases can be generated; do not inhale gases/smoke. In the event of fire the following can be generated: carbon monoxide (CO), carbon dioxide (CO₂).

5.3 Advice for firefighters

Protective actions

In case of fire evacuate the area. In case of fire or heating do not breathe fumes/vapours. Vapours can form explosive mixtures with air. In case of fire aerosols can explode and be propelled to considerable distances in different directions. Cool containers at risk with water spray. If possible remove containers from endangered area. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137).

Additional information

No information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment

Use personal protective equipment (Section 8).

Precautionary measures

Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking!

Emergency procedures

No action shall be taken involving any personal risk or without suitable training. Prevent access to unauthorised personnel. Prevent access to unprotected personnel. Avoid contact with skin and eyes. Do not breathe vapour or mist.

For emergency responders

Use personal protective equipment.

6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. If accidental large entry into water or ground occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

For containment

Stem the spill if this does not pose risks.

For cleaning up

Collect the spray cans and hand them over to an authorized waste disposal contractor. Release of liquid because of damaged aerosol can (release of large quantities): In case of bigger spill, dam the spillage, pump the liquid into appropriate labelled containers, absorb the residue with absorbent material and dispose of according to local regulations. Do not absorb spillage with sawdust or other combustible material. Dispose in accordance with applicable regulations (see Section 13). Clean residue from spill site.

OTHER INFORMATION

No information.

6.4 Reference to other sections

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Ensure adequate ventilation. Take precautionary measures against static discharges. Keep away from sources of ignition - no smoking. Use spark-proof tools. Pressurized container; protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or incandescent material.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

No information.

Other measures

No information.

Advice on general occupational hygiene

Consider measures required in Section 8 of this safety data sheet. Use personal protective equipment. Refer to instructions on label and regulations for safety and health at work. Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Avoid contact with skin, eyes and clothes. Do not breathe vapours/mist.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Store in accordance with local regulations. Keep in well closed containers. Keep in cool and well ventilated area. Protect from open fire, heat and direct sunlight. Keep away from sources of ignition. Keep away from oxidising substances. Keep away from food, drink and animal feeding stuffs.

Packaging materials

The original container of producer.

Requirements for storage rooms and vessels

Do not store in unlabelled containers.

Storage class

No information.

Further information on storage conditions

No information.

7.3 Specific end use(s)

Recommendations

No information.

Industrial sector specific solutions

No information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

Name	mg/m ³	ml/m ³	Short-term value mg/m ³	Short-term value ml/m ³	Remark	Biological Tolerance Values
Xylene, o-,m-,p- or mixed isomers (1330-20-7)	220	50	441	100	Sk, BMGV	650 mmol methyl hippuric acid/mol creatinine in urine - Post shift 650 mmol methyl hippuric acid/mol creatinine in urine - Post shift 650 mmol methyl hippuric acid/mol creatinine in urine - Post shift
1-Methoxypropyl acetate (108-65-6)	274	50	548	100	Sk	/
Acetone (67-64-1)	1210	500	3620	1500	/	/
Butyl acetate (123-86-4)	724	150	966	200	/	/
Dimethyl ether (115-10-6)	766	400	958	500	/	/
Propan-2-ol (67-63-0)	999	400	1250	500	/	/

Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

DNEL/DMEL values

For product

No information.

For components

Name	Type	Exposure route	exp. frequency	Remark	value
acetone	Worker	dermal	long term systemic effects	/	186 mg/kg bw/day
acetone	Worker	inhalation	short term local effects	/	2420 mg/m ³
acetone	Worker	inhalation	long term systemic effects	/	1210 mg/m ³
acetone	Consumer	oral	long term systemic effects	/	62 mg/kg bw/day
acetone	Consumer	dermal	long term systemic effects	/	62 mg/kg bw/day
acetone	Consumer	inhalation	long term systemic effects	/	200 mg/m ³
dimethyl ether	Worker	inhalation	long term systemic effects	/	1894 mg/m ³
dimethyl ether	Consumer	inhalation	long term systemic effects	/	471 mg/m ³
n-butyl acetate	Worker	inhalation	long term systemic effects	/	300 mg/m ³
n-butyl acetate	Worker	inhalation	short term systemic effects	/	600 mg/m ³
n-butyl acetate	Worker	inhalation	long term local effects	/	300 mg/m ³
n-butyl acetate	Worker	inhalation	short term local effects	/	600 mg/m ³
n-butyl acetate	Worker	dermal	long term systemic effects	/	11 mg/kg bw/day
n-butyl acetate	Worker	dermal	short term systemic effects	/	11 mg/kg bw/day
n-butyl acetate	Consumer	inhalation	long term systemic effects	/	35.7 mg/m ³
n-butyl acetate	Consumer	inhalation	short term systemic effects	/	300 mg/m ³
n-butyl acetate	Consumer	inhalation	long term local effects	/	35.7 mg/m ³
n-butyl acetate	Consumer	inhalation	short term local effects	/	300 mg/m ³
n-butyl acetate	Consumer	dermal	long term systemic effects	/	6 mg/kg bw/day
n-butyl acetate	Consumer	dermal	short term systemic effects	/	6 mg/kg bw/day
n-butyl acetate	Consumer	oral	long term systemic effects	/	2 mg/kg bw/day
n-butyl acetate	Consumer	oral	short term systemic effects	/	2 mg/kg bw/day
propan-2-ol	Worker	inhalation	long term systemic effects	/	500 mg/m ³
propan-2-ol	Worker	dermal	long term systemic effects	/	888 mg/kg bw/day
propan-2-ol	Consumer	inhalation	long term systemic effects	/	89 mg/m ³
propan-2-ol	Consumer	dermal	long term systemic effects	/	319 mg/kg bw/day
propan-2-ol	Consumer	oral	long term systemic effects	/	26 mg/kg bw/day

PNEC values

For product

No information.

For components

Name	Exposure route	Remark	value
acetone	marine water	/	1.06 mg/L
acetone	fresh water	/	10.6 mg/L
acetone	fresh water sediment	dry weight	30.4 mg/kg
acetone	marine water sediment	dry weight	3.04 mg/kg

acetone	soil	dry weight	29.5 mg/kg
acetone	water treatment plant	/	100 mg/L
acetone	water, intermittent release	fresh water	21 mg/L
dimethyl ether	fresh water	/	0.155 mg/L
dimethyl ether	water, intermittent release	fresh water	1.549 mg/L
dimethyl ether	marine water	/	0.016 mg/L
dimethyl ether	water treatment plant	/	160 mg/L
dimethyl ether	fresh water sediment	dry weight	0.681 mg/kg
dimethyl ether	marine water sediment	dry weight	0.069 mg/kg
dimethyl ether	soil	dry weight	0.045 mg/kg
n-butyl acetate	fresh water	/	0.18 mg/L
n-butyl acetate	water, intermittent release	fresh water	0.36 mg/L
n-butyl acetate	marine water	/	0.018 mg/L
n-butyl acetate	water treatment plant	/	35.6 mg/L
n-butyl acetate	fresh water sediment	dry weight	0.981 mg/kg
n-butyl acetate	marine water sediment	dry weight	0.098 mg/kg
n-butyl acetate	soil	dry weight	0.09 mg/kg
propan-2-ol	fresh water	/	140.9 mg/L
propan-2-ol	water, intermittent release	fresh water	140.9 mg/L
propan-2-ol	marine water	/	140.9 mg/L
propan-2-ol	water treatment plant	/	2251 mg/L
propan-2-ol	fresh water sediment	dry weight	552 mg/kg
propan-2-ol	marine water sediment	dry weight	552 mg/kg
propan-2-ol	soil	dry weight	28 mg/kg
propan-2-ol	food chain	oral	160 mg/kg feed

8.2 Exposure controls

Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Avoid contact with skin, eyes and clothes. Do not breathe vapours/aerosols. Keep away from foodstuffs, beverages and feed. Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

If this product contains ingredients with exposure limits, personal, workplace atmosphere monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protection.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration.

Personal protective equipment

Eye and face protection

Safety glasses with side protection (BS EN ISO 16321-1:2022).

Hand protection

In case of prolonged exposure, wear protective gloves (EN 374).

Appropriate materials

Skin protection

Cotton protective clothing and shoes that cover the entire foot (BS EN ISO 20345:2022).

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. If the concentration limit values are exceeded, it is necessary to wear appropriate respiratory protection. Wear suitable protective breathing mask (BS EN 136) with filter

A2-P2 (BS EN 14387).

Thermal hazards
No information.

Environmental exposure controls
Substance/mixture related measures to prevent exposure
No information.

Instruction measures to prevent exposure
No information.

Organisational measures to prevent exposure
No information.

Technical measures to prevent exposure
No information.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state
liquid - aerosol

Colour
according to specification gray

Odour
characteristic

Important health, safety and environmental information

Odour threshold	No information.
Melting point/Freezing point	No information.
Boiling point or initial boiling point and boiling range	No information.
Flammability	No information.
Lower and upper explosion limit	3.3 — 26.2 vol % (dimethylether) 2.1 — 13 vol % (acetone) 1.5 — 10.9 vol % (isobutane / propane)
Flash point	No information.
Auto-ignition temperature	No information.
Decomposition temperature	No information.
pH	No information.
Viscosity	No information.
Solubility	No information.
Partition coefficient	No information.
Vapour pressure	3.37 hPa at 20 °C
Density and/or relative density	Density: 0.895 — 0.987 kg/L at 20 °C (data refers to the liquid portion of the product)
Relative vapour density	No information.
Particle characteristics	No information.

9.2 OTHER INFORMATION

Weight organic solvents	634 — 677 g/l (VOC - includes the propellant) 84 — 90 % (VOC - includes the propellant)
Explosive properties	No information.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3 Possibility of hazardous reactions

The product is stable under recommended storage and handling conditions.

10.4 Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not expose to heat and direct sunlight.

10.5 Incompatible materials

Strong reducing agents.

Oxidants. Halogenated compounds. Alkali metal. Ethanolamine. Attacks many plastics and rubbers.

Peroxide.

10.6 Hazardous decomposition products

In case of fire/explosion vapours/gases that pose a health hazard are released.

SECTION 11: TOXICOLOGICAL INFORMATION

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

(a) Acute toxicity

For components

Name	Exposure route	Type	Species	Time	value	Method	Remark
acetone	inhalation	LC ₅₀	rat	4 h	76 mg/l	/	/
acetone	dermal	LD ₅₀	rabbit	/	> 15800 mg/kg	/	/
acetone	oral	LD ₅₀	rat	/	5800 mg/kg	OECD 401	/
dimethyl ether	Inhalation (gases)	LC ₅₀	rat	4 h	309 mg/l	/	/
n-butyl acetate	oral	LD ₅₀	rat	/	13100 mg/kg	/	/
n-butyl acetate	dermal	LD ₅₀	rabbit	/	> 5000 mg/kg	/	/
n-butyl acetate	inhalation	LC ₅₀	rat	4 h	> 21 mg/l	/	/
2-methoxy-1-methylethyl acetate	oral	LD ₅₀	rat	/	> 5000 mg/kg	/	/
2-methoxy-1-methylethyl acetate	inhalation (vapours)	LC ₀	rat	6 h	> 4345 ppm	/	/
2-methoxy-1-methylethyl acetate	dermal	LD ₅₀	rat	/	> 2000 mg/kg	/	/
xylene	oral	LD ₅₀	rat	/	4300 mg/kg	/	/
xylene	dermal	LD ₅₀	rabbit	/	2000 mg/kg	/	/
xylene	inhalation	LC ₅₀	rat	4 h	21.7 mg/l	/	/
propan-2-ol	oral	LD ₅₀	rat	/	5045 mg/kg	/	/
propan-2-ol	dermal	LD ₅₀	rabbit	/	12800 mg/kg	/	/

propan-2-ol	inhalation	LC ₅₀	rat	4 h	30 mg/l	/	/
butyl glycollate	oral	LD ₅₀	rat	/	4595 mg/kg	/	/

Additional information

The product is not classified for acute toxicity.

(b) Skin corrosion/irritation

For components

Name	Species	Time	result	Method	Remark
acetone	guinea pig	/	Non-irritant.	/	/
dimethyl ether	/	/	May cause frostbite.	/	/
2-methoxy-1-methylethyl acetate	/	/	May cause skin irritation.	/	/

Additional information

The product is not classified as irritating to the skin.

(c) Serious eye damage/irritation

For components

Name	Exposure route	Species	Time	result	Method	Remark
acetone	/	rabbit	/	Irritating to eyes.	OECD 405	/
acetone	/	rabbit	/	Irritates the eyes. The occurrence of corneal injuries is possible.	OECD 405	/
2-methoxy-1-methylethyl acetate	/	/	/	May cause eye irritation.	/	/

Additional information

Causes serious eye irritation.

(d) Respiratory or skin sensitisation

For components

Name	Exposure route	Species	Time	result	Method	Remark
acetone	-	guinea pig	/	Non sensitising.	OECD 406	/
2-methoxy-1-methylethyl acetate	-	guinea pig	/	Non sensitising.	Maximisation test	/

Additional information

The product is not classified as sensitising.

(e) (Germ cell) mutagenicity

For components

Name	Type	Species	Time	result	Method	Remark
acetone	/	Bacteria	/	The tests did not show mutagenic effects	/	/
acetone	/	Cell: Mammalian-Animal	/	The tests did not show mutagenic effects	/	/
acetone	in-vitro mutagenicity	/	/	Negative.	OECD 473	Chromosome aberration assay
acetone	in-vitro mutagenicity	Cell: Mammalian-Animal	/	Negative.	OECD 476	/
acetone	in-vitro mutagenicity	Bacteria	/	Negative.	OECD 471	/
acetone	in-vivo mutagenicity	mouse	/	Negative.	The micronucleus test	/
dimethyl ether	/	/	/	The chemical is not classified as mutagenic.	/	/
dimethyl ether	in-vitro mutagenicity	/	/	Negative.	OECD 471	Ames test

dimethyl ether	in-vitro mutagenicity	Human (lymphocytes)	/	Negative.	cytogenetic test	OECD 473
dimethyl ether	in-vivo mutagenicity	<i>Drosophila melanogaster</i>	/	Negative.	OECD 477	/

(f) Carcinogenicity

For components

Name	Exposure route	Type	Species	Time	value	result	Method	Remark
acetone	/	/	/	/	/	Animal testing did not show any carcinogenic effects.	/	/
acetone	dermal	/	mouse	/	/	negative	/	/
dimethyl ether	/	/	/	/	/	Substance is not classified as carcinogenic.	/	/

(g) Reproductive toxicity

For components

Name	Reproductive toxicity type	Type	Species	Time	value	result	Method	Remark
acetone	Reproductive toxicity	/	/	/	/	Animal testing did not show any effects on fertility.	/	/
acetone	Teratogenicity	/	rat	/	/	Negative.	OECD 414	/
dimethyl ether	Reproductive toxicity	inhalation	rat	/	47 mg/L	Animal testing did not show any effects on fertility.	OECD 452	/
dimethyl ether	Maternal toxicity	NOAEL	rat	/	5000 ppm	/	/	Inhalation
dimethyl ether	Teratogenicity	NOAEL	rat	/	40000 ppm	/	/	Inhalation
dimethyl ether	Developmental toxicity	NOAEL	rat	/	40000 ppm	/	/	Inhalation
dimethyl ether	-	NOAEL	rat	/	20000 ppm	/	OECD 414	inhalation (vapor), embryo-fetal development

Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

(h) STOT-single exposure

For components

Name	Exposure route	Type	Species	Time	Exposure	organ	value	result	Method	Remark
acetone	-	-	/	/	/	/	/	May cause drowsiness or dizziness.	/	/

Additional information

May cause drowsiness or dizziness.

(i) STOT-repeated exposure

For components

Name	Exposure route	Type	Species	Time	Exposure	organ	value	result	Method	Remark
acetone	dermal	-	/	/	/	/	/	Repeated exposure may cause dry and cracked skin.	/	/
acetone	Repeated dose toxicity	NOAEL	rat	90 days	/	oral	900 mg/kg bw/day	/	/	/

acetone	Repeated dose toxicity	NOAEC	rat	/	/	/	22500 mg/m ³	/	/	inhalation
acetone	inhalation	-	human	/	/	/	/	Headache, dizziness, fatigue, nausea and vomiting.	/	excessive exposure to vapors
acetone	dermal	-	human	/	/	/	/	Repeated or prolonged exposure may cause dermatitis.	/	/
acetone	inhalation	-	human	/	chronic	Nasal inner lining	/	Symptoms: inflammation of the mucous membranes.	/	/
dimethyl ether	Repeated dose toxicity	NOEL	rat	2 years	/	/	47 mg/L	/	OECD 452	inhalation

Additional information

STOT RE (repeated exposure): Not classified. Repeated exposure may cause skin dryness or cracking.

(j) Aspiration hazard

For components

Name	result	Method	Remark
dimethyl ether	Aspiration hazard: Not Classified.	/	/

Additional information

Aspiration hazard: Not classified.

Symptoms related to the physical, chemical and toxicological characteristics

No information.

Interactive effects

No information.

11.2 Information on other hazards

Endocrine disrupting properties

No information.

Other information

No information.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute (short-term) toxicity

For components

Name	Type	value	Exposure time	Species	organism	Method	Remark
acetone	LC ₅₀	5540 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>	/	/
acetone	LC ₅₀	11000 mg/L	96 h	fish	<i>Alburnus alburnus</i>	/	/
acetone	LC ₅₀	8800 mg/L	48 h	crustacea	<i>Daphnia magna</i>	/	/
acetone	NOEC	430 mg/L	96 h	algae	/	/	/
acetone	-	1000 mg/L	30 min	bacteria	Activated sludge	OECD 209	/

dimethyl ether	LC ₅₀	> 4.1 mg/L	96 h	fish	<i>Poecilia reticulata</i>	/	Semi-Static system
dimethyl ether	EC ₅₀	> 4.4 mg/L	48 h	crustacea	<i>Daphnia magna</i>	/	static test
dimethyl ether	EC ₅₀	755.5 mg/L	48 h	<i>Daphnia</i>	/	ECOSAR	/
dimethyl ether	EC ₅₀	154.9 mg/L	96 h	algae	/	ECOSAR ECOSAR	/
dimethyl ether	EC ₁₀	> 1600 mg/L	17 h	bacteria	<i>Pseudomonas putida</i>	/	static test
2-methoxy-1-methylethyl acetate	LC ₅₀	134 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>	OECD 203	/
2-methoxy-1-methylethyl acetate	EC ₅₀	> 500 mg/L	48 h	crustacea	<i>Daphnia magna</i>	Directive 67/548/EEC, Annex V, C.2. Directive 67/548/EEC, Annex V, C.2.	/
2-methoxy-1-methylethyl acetate	EC ₅₀	> 1000 mg/L	72 h	algae	<i>Selenastrum capricornutum</i>	OECD 201	/
2-methoxy-1-methylethyl acetate	EC ₁₀	> 1000 mg/L	30 min	bacteria	Activated sludge	ISO 8192 ISO 8192	/
xylene	EC ₅₀	165 mg/L	48 h	<i>Daphnia</i>	/	/	/

Chronic (long-term) toxicity

For components

Name	Type	value	Exposure time	Species	organism	Method	Remark
acetone	NOEC	2212 mg/l	28 days	crustacea	<i>Daphnia pulex</i>	/	reproduction
2-methoxy-1-methylethyl acetate	NOEC	47.5 mg/l	14 days	fish	<i>Oryzias latipes</i>	OECD 204 OECD 204	/
2-methoxy-1-methylethyl acetate	NOEC	≥ 100 mg/l	21 days	crustacea	<i>Daphnia magna</i>	OECD 202	/

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

For components

Name	Environment	Type / Method	Half Time	Evaluation	Method	Remark
acetone	water	/	/	Degraded by hydrolysis.	/	/

Biodegradation

For components

Name	Type	Rate	Time	Evaluation	Method	Remark
acetone	biodegradability	91 %	28 days	readily biodegradable	OECD 301 B	/
acetone	BOD	1900 mg/g	5 days	/	/	/
acetone	COD	2100 mg/g	/	/	/	/
dimethyl ether	aerobic	5 %	28 days	not readily biodegradable	OECD 301 D	activated sludge
2-methoxy-1-methylethyl acetate	BOD	83 %	28 days	readily biodegradable	OECD 301 F	/

12.3 Bioaccumulative potential

Partition coefficient

For components

Name	Media	value	Temperature °C	pH	Concentration	Method
acetone	Log Pow	-0.24	/	/	/	/

Bioconcentration factor (BCF)

For components

Name	Species	organism	value	Duration	Evaluation	Method	Remark
acetone	BCF	/	< 10	/	/	/	/

12.4 Mobility in soil

Known or predicted distribution to environmental compartments

No information.

Surface tension

No information.

Adsorption/Desorption

For components

Name	Type	Criterion	value	Evaluation	Method	Remark
dimethyl ether	Soil	/	/	Moderate mobility in soil.	/	/

12.5 Results of PBT and vPvB assessment

No evaluation.

12.6 Endocrine disrupting properties

No information.

12.7 Other adverse effects

No information.

12.8 Additional information

For product

Product is not classified as dangerous for environment. Water hazard class 1 (self-assessment): slightly hazardous for water. Handle in accordance with good working practices so that the product is not released into the environment.

For components

acetone

Does not bioaccumulate. The substance is highly volatile. This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Avoid release to the environment.

dimethyl ether

Bioaccumulation is not expected. This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

2-methoxy-1-methylethyl acetate

Bioaccumulation is not expected. This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal

Waste chemical

Avoid release to the environment. Dispose of in accordance with applicable waste disposal regulation. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste. Product and container must be disposed of safely.

Waste codes / waste designations according to LoW

16 05 04* - gases in pressure containers (including halons) containing dangerous substances

Packaging

Uncleaned containers should not be perforated, cut or welded. Pressurized container. Do not pierce or burn, even after use. Dispose of in accordance with applicable waste disposal regulation. Deliver completely emptied containers to approved waste disposal authorities.

Waste codes / waste designations according to LoW

15 01 11* - metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers

Waste treatment-relevant information

No information.





Sewage disposal-relevant information

No information.

Other disposal recommendations

No information.

SECTION 14: TRANSPORT INFORMATION

ADR/RID	IMDG	IATA	ADN
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
14.3 Transport hazard class(es)			
2	2	2	2
			
14.4 Packing group			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.5 Environmental hazards			
NO	NO	NO	NO
14.6 Special precautions for user			

Limited quantities 1 L Special provisions 190, 327, 344, 625 Packing Instructions P207, LP200 Special packing provisions PP87, RR6, L2 Transport category 2 Tunnel restriction code (D)	Limited quantities 1 L EmS F-D, S-U	Limited Quantity, Packing Instructions (Ltd Qty, Pkg Inst) Y203 Limited Quantity, Maximum Net Quantity/Package (Ltd Qty, Max Net Qty/Pkg) 30 kg G Packing Instructions (Pkg Inst) 203 Maximum Net Quantity/Package (Max Net Qty/Pkg) 25 kg Special provisions A145, A167, A802	Limited quantities 1 L
14.7 Maritime transport in bulk according to IMO instruments			
Goods may not be carried in bulk in bulk containers, containers or vehicles.			

SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2020/878)
- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)
not applicable

Regulation EC 648/2004 on detergents
No information.

Special instructions

REGULATION (EU) 2019/1148 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on the marketing and use of explosives precursors:
ANNEX II REPORTABLE EXPLOSIVES PRECURSORS:
Acetone (CAS RN 67-64-1).
All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Indication of changes

2.2 Label elements 6.3 Methods and material for containment and cleaning up 8.1 Control parameters 9.1 Information on basic physical and chemical properties 9.2 OTHER INFORMATION

Key literature references and sources for data

No information.

Abbreviations and acronyms

ATE - Acute Toxicity Estimate
 ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
 ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 CEN - European Committee for Standardisation

C&L - Classification and Labelling
 CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
 CAS# - Chemical Abstracts Service number
 CMR - Carcinogen, Mutagen, or Reproductive Toxicant
 CSA - Chemical Safety Assessment
 CSR - Chemical Safety Report
 DMEL - Derived Minimal Effect Level
 DNEL - Derived No Effect Level
 DPD - Dangerous Preparations Directive 1999/45/EC
 DSD - Dangerous Substances Directive 67/548/EEC
 DU - Downstream User
 EC - European Community
 ECHA - European Chemicals Agency
 EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
 EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
 EEC - European Economic Community
 EINECS - European Inventory of Existing Commercial Substances
 ELINCS - European List of notified Chemical Substances
 EN - European Standard
 EQS - Environmental Quality Standard
 EU - European Union
 Euphrac - European Phrase Catalogue
 EWC - European Waste Catalogue (replaced by LoW – see below)
 GES - Generic Exposure Scenario
 GHS - Globally Harmonized System
 IATA - International Air Transport Association
 ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
 IMDG - International Maritime Dangerous Goods
 IMSBC - International Maritime Solid Bulk Cargoes
 IT - Information Technology
 IUCLID - International Uniform Chemical Information Database
 IUPAC - International Union for Pure Applied Chemistry
 JRC - Joint Research Centre
 Kow - octanol-water partition coefficient
 LC50 - Lethal Concentration to 50 % of a test population
 LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
 LE - Legal Entity
 LoW - List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)
 LR - Lead Registrant
 M/I - Manufacturer / Importer
 MS - Member States
 MSDS - Material Safety Data Sheet
 OC - Operational Conditions
 OECD - Organization for Economic Co-operation and Development
 OEL - Occupational Exposure Limit
 OJ - Official Journal
 OR - Only Representative
 OSHA - European Agency for Safety and Health at work
 PBT - Persistent, Bioaccumulative and Toxic substance
 PEC - Predicted Effect Concentration
 PNEC(s) - Predicted No Effect Concentration(s)
 PPE - Personal Protection Equipment
 (Q)SAR - Qualitative Structure Activity Relationship
 REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
 RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
 RIP - REACH Implementation Project
 RMM - Risk Management Measure
 SCBA - Self-Contained Breathing Apparatus
 SDS - Safety data sheet
 SIEF - Substance Information Exchange Forum
 SME - Small and Medium sized Enterprises
 STOT - Specific Target Organ Toxicity
 (STOT) RE - Repeated Exposure
 (STOT) SE - Single Exposure

SVHC - Substances of Very High Concern
 UN - United Nations
 vPvB - Very Persistent and Very Bioaccumulative

List of relevant H phrases

- H220 Extremely flammable gas.
- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H360D May damage the unborn child.
- H361 Suspected of damaging fertility or the unborn child.

The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.