

# SAFETY DATA SHEET

 ACCORDING TO REGULATION (EC) 1907/2006

**Product name:** Bremsen Spezial Reiniger

**Creation date:** 11.10.2021, **Revision:** 17.03.2023, **version:** 2.0

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

### 1.1 Product identifier

**Product name**

Bremsen Spezial Reiniger (Art.-Nr. 2110, 8104203)

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

**Relevant identified uses**

Cleaning agent.

**Uses advised against**

No information.

### 1.3 Details of the supplier of the safety data sheet

**Supplier**

FOLIATEC Böhm GmbH & Co Vertriebs KG

Neumeyerstr. 70

D - 90411 Nürnberg

Tel: 0049911975440

Fax: 004991197544366

Website: www.foliatec.de

### 1.4 Emergency Telephone Number

**Supplier**

+49 - 91 19 75 44 - 0

(Mo - Fr, 08:00 - 17:00)

## 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.

Asp. Tox. 1; H304 May be fatal if swallowed and enters airways.

Skin Irrit. 2; H315 Causes skin irritation.

STOT SE 3; H336 May cause drowsiness or dizziness.

Aquatic Chronic 2; H411 Toxic to aquatic life with long lasting effects.

### 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.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

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.

P273 Avoid release to the environment.

P301 + P310 + P331 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Do NOT induce vomiting.

P302 + P352 + P362 + P364 IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.

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

P501 Dispose of contents/container in accordance with national regulation.

**Contains:**

hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

**2.3 Other hazards****PBT/vPvB**

No information.

**Endocrine disrupting properties**

No information.

**Additional information**

No information.

**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
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	64742-49-0 927-510-4 - 01-2119475515-33	50-100	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411	/	/
isobutane	75-28-5 200-857-2 601-004-00-0 01-2119485395-27	2,5-10	Flam. Gas 1; H220 Press. Gas; H280	/	C, U
acetone	67-64-1 200-662-2 606-001-00-8 01-2119471330-49	2,5-10	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066	/	/

carbon dioxide	124-38-9 204-696-9 -	2,5-10	Press. Gas; H280	/	/
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
n-hexane	110-54-3 203-777-6 601-037-00-0	<2,5	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Repr. 2; H361f STOT RE 2; H373 Aquatic Chronic 2; H411	STOT RE 2; H373; C ≥ 5%	/

### Notes for substances

C	Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers.  In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.
U	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).

## 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

Remove patient to fresh air - move out of dangerous area. Keep at rest in a position comfortable for breathing. If symptoms develop and persist, seek medical attention. 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. 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: Rinse mouth thoroughly with water. Do not induce vomiting! Immediately consult a doctor. 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**

Irritating to the skin. Itching, redness, pain.

**Following eye contact**

Contact with eyes can cause irritation (redness, tearing, pain).

**Following ingestion**

Not likely. Accidental ingestion: May cause abdominal discomfort. May cause nausea/vomiting and diarrhea. Irritates mucous membranes in the mouth, throat, esophagus and in gastrointestinal area. May be fatal if swallowed and enters airways.

**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**

Foam.

Fire extinguishing powder.

Carbon dioxide (CO<sub>2</sub>).

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. Do not use water jet as an extinguisher, as this will spread the fire.

**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 (CO<sub>2</sub>). Various hydrocarbons.

Aldehydes. Soot.

**5.3 Advice for firefighters**

**Protective actions**

In case of fire or heating do not breathe fumes/vapours. Vapours can form explosive mixtures with air. Prolonged heating can cause an explosion. 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**

Contaminated extinguishing agents must be disposed of in accordance with the regulations; do not allow to reach the sewage system.

## 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

Evacuate the danger zone. Prevent access to unprotected personnel. Prevent access to unauthorised personnel. Avoid contact with skin, eyes and clothing. 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

Prevent release into the sewer, water, basements or confined areas. 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).

#### 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. Protect from open fire and other sources of ignition or heat. Pressurized container; protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Vapours and air form explosive mixtures. Take precautionary measures against static discharges. Use spark-proof tools.

##### Measures to prevent aerosol and dust generation

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

##### Measures to protect the environment

Avoid release to the environment.

#### Other measures

No information.

#### Advice on general occupational hygiene

Refer to instructions on label and regulations for safety and health at work. Consider measures required in Section 8 of this safety data sheet. Use personal protective equipment. 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 cool and well ventilated area. Keep in well closed containers. Keep

away from sources of ignition - no smoking. Protect against heat and direct sunlight. 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 <sup>3</sup>	ml/m <sup>3</sup>	Short-term value mg/m <sup>3</sup>	Short-term value ml/m <sup>3</sup>	Remark	Biological Tolerance Values
n-Hexane (110-54-3)	72	20	/	/	/	/
Acetone (67-64-1)	1210	500	3620	1500	/	/
Carbon dioxide (124-38-9)	9150	5000	27400	15000	/	/

#### 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
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Worker	inhalation	long term systemic effects	/	2085 mg/m <sup>3</sup>
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Worker	dermal	long term systemic effects	/	300 mg/kg bw/day
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Consumer	inhalation	long term systemic effects	/	447 mg/m <sup>3</sup>
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Consumer	dermal	long term systemic effects	/	149 mg/kg bw/day
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Consumer	oral	long term systemic effects	/	149 mg/kg bw/day
acetone	Worker	inhalation	long term systemic effects	/	1210 mg/m <sup>3</sup>
acetone	Worker	inhalation	short term local effects	/	2420 mg/m <sup>3</sup>

acetone	Worker	dermal	long term systemic effects	/	186 mg/kg bw/day
acetone	Consumer	inhalation	long term systemic effects	/	200 mg/m <sup>3</sup>
acetone	Consumer	dermal	long term systemic effects	/	62 mg/kg bw/day
acetone	Consumer	oral	long term systemic effects	/	62 mg/kg bw/day

#### PNEC values

##### For product

No information.

##### For components

Name	Exposure route	Remark	value
acetone	fresh water	/	10.6 mg/L
acetone	marine water	/	1.06 mg/L
acetone	fresh water sediment	dry weight	21 mg/kg
acetone	water treatment plant	/	100 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

## 8.2 Exposure controls

### Appropriate engineering control

#### Substance/mixture related measures to prevent exposure during identified uses

Handle in accordance with good industrial hygiene and safety practice. 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. If technical measures to reduce workers' exposure are not sufficient, and the limit values of hazardous substances in the air are exceeded, it is necessary to use personal protective equipment.

#### Structural measures to prevent exposure

No information.

#### Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse. 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 goggles (BS EN ISO 16321-1:2022).

##### Hand protection

Protective gloves (BS EN ISO 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**

Do not allow product to reach drains, sewage systems or ground water.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties****Physical state**

liquid - aerosol

**Colour**

colourless

**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	1.5 — 10.9 vol % (propellant) 2.1 — 13 vol % (acetone)
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	< 70 hPa at 20 °C
Density and/or relative density	Density: 0.709 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	693 g/l (VOC) 97 % (VOC)
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. Do not store above 50°C.

**10.5 Incompatible materials**

Strong acids.  
Oxidants.  
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
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	dermal	LD <sub>50</sub>	rat	24 h	> 2920 mg/kg bw	/	/
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	oral	LD <sub>50</sub>	rat	/	> 5840 mg/kg bw	/	/
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	inhalation (vapours)	LC <sub>50</sub>	rat	4 h	> 23300 mg/m <sup>3</sup>	OECD 403	/
acetone	inhalation	LC <sub>50</sub>	rat	4 h	76 mg/l	/	/
acetone	dermal	LD <sub>50</sub>	rabbit	/	> 15800 mg/kg	/	/
acetone	oral	LD <sub>50</sub>	rat	/	5800 mg/kg	OECD 401	/

**Additional information**

The product is not classified for acute toxicity.

**(b) Skin corrosion/irritation**

For components

Name	Species	Time	result	Method	Remark
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	/	/	Irritating.	/	/
acetone	guinea pig	/	Non-irritant.	/	/

**Additional information**

Causes skin irritation.

**(c) Serious eye damage/irritation**

For components

Name	Exposure route	Species	Time	result	Method	Remark
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	/	/	/	Not classified.	/	/
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	/	/	/	Contact with eyes may cause irritation.	/	/
acetone	/	rabbit	/	Irritates the eyes. The occurrence of corneal injuries is possible.	OECD 405	/

**Additional information**

The product is not classified as an irritant to the eyes.

**(d) Respiratory or skin sensitisation****For components**

Name	Exposure route	Species	Time	result	Method	Remark
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	-	/	/	Not classified.	/	/
acetone	-	guinea pig	/	Non sensitising.	OECD 406	/

**Additional information**

The product is not classified as sensitising.

**(e) (Germ cell) mutagenicity****For components**

Name	Type	Species	Time	result	Method	Remark
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Genotoxicity	/	/	Negative.	/	/
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	/

**(f) Carcinogenicity****For components**

Name	Exposure route	Type	Species	Time	value	result	Method	Remark
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	/	/	/	/	/	Substance is not classified as carcinogenic.	/	/
acetone	/	/	/	/	/	Animal testing did not show any carcinogenic effects.	/	/
acetone	dermal	/	mouse	/	/	negative	/	/

**(g) Reproductive toxicity****For components**

Name	Reproductive toxicity type	Type	Species	Time	value	result	Method	Remark
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hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Reproductive toxicity	/	rat	/	/	The results of animal studies gave no indication of a fertility impairing effect.	/	/
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Developmental toxicity	/	rat	/	/	Did not show teratogenic effects in animal experiments.	/	/
acetone	Reproductive toxicity	/	/	/	/	Animal testing did not show any effects on fertility.	/	/
acetone	Teratogenicity	/	rat	/	/	Negative.	OECD 414	/
n-hexane	Reproductive toxicity	/	/	/	/	Suspected of damaging fertility.	/	/

#### 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
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	inhalation	-	/	/	/	/	/	May cause effects on the central nervous system.	/	high vapours concentrations
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	inhalation	-	/	/	/	/	/	Symptoms: nausea, unconsciousness.	/	high vapours concentrations
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	inhalation	-	/	/	/	/	/	Symptoms: mucous membrane irritation.	/	high vapours concentrations
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	inhalation	-	/	/	/	/	/	May cause respiratory irritation.	/	high vapours concentrations
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	oral	-	/	/	/	/	/	May cause irritation of the digestive tract.	/	/
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	-	-	/	/	/	/	/	May cause drowsiness or dizziness.	/	/
acetone	-	-	/	/	/	/	/	May cause drowsiness or dizziness.	/	/
carbon dioxide	inhalation	-	human	/	/	/	/	1 % CO <sub>2</sub> in the air: slight increase in breathing rate.	/	/
carbon dioxide	inhalation	-	human	/	/	/	/	2 % CO <sub>2</sub> in the air: a 50 % increase in breathing rate.	/	/

carbon dioxide	inhalation	-	human	/	/	/	/	3 % CO2 in the air: a two-times increase in breathing rate, decreased hearing, headache, slight narcotic effect, increased blood pressure and pulse.	/	/
carbon dioxide	inhalation	-	human	/	/	/	/	4-5% concentration of CO2 in the air: an increase in breathing rate by four times, symptoms of intoxication become noticeable, a choking feeling.	/	/
carbon dioxide	inhalation	-	human	/	/	/	/	5-10 % CO2 in the air: headache, tinnitus and dizziness; after a few minutes - loss of consciousness.	/	/
carbon dioxide	inhalation	-	human	/	/	/	/	10-100 % CO2 in the air: unconsciousness occurs rapidly at concentrations above 10%; it can be harmful or fatal.	/	/

**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 <sup>3</sup>	/	/	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.	/	/

**Additional information**

STOT RE (repeated exposure): Not classified.

**(j) Aspiration hazard****For components**

Name	result	Method	Remark
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Aspiration into the lungs can cause lung damage.	/	The exposed person should be kept under medical surveillance for 48 hours.
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	May be fatal if swallowed and enters airways.	/	/

**Additional information**

May be fatal if swallowed and enters airways.

**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
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	ErL <sub>50</sub>	10 - 30 mg/L	72 h	algae	<i>Pseudokirchneriella subcapitata</i>	OECD 201	/
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	EbL <sub>50</sub>	10 - 30 mg/L	72 h	algae	<i>Pseudokirchneriella subcapitata</i>	OECD 201	/
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	EL <sub>50</sub>	3 mg/L	48 h	crustacea	<i>Daphnia magna</i>	OECD 202	/
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	LL <sub>50</sub>	> 13.4 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>	OECD 203	/

hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	NOELR	6.3 mg/L	72 h	algae	<i>Pseudokirchneriella subcapitata</i>	OECD 201 OECD 201	/
acetone	LC <sub>50</sub>	5540 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>	/	/
acetone	LC <sub>50</sub>	11000 mg/L	96 h	fish	<i>Alburnus alburnus</i>	/	/
acetone	LC <sub>50</sub>	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	/

### Chronic (long-term) toxicity

#### For components

Name	Type	value	Exposure time	Species	organism	Method	Remark
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	NOELR	1 mg/l	21 days	crustacea	<i>Daphnia magna</i>	OECD 211	/
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	NOELR	1.53 mg/l	28 days	fish	<i>Oncorhynchus mykiss</i>	QSAR Petrotox QSAR Petrotox	/
acetone	NOEC	2212 mg/l	28 days	crustacea	<i>Daphnia pulex</i>	/	reproduction

## 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
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	biodegradability	98 %	28 days	readily biodegradable	OECD 301 F	/
acetone	biodegradability	91 %	28 days	readily biodegradable	OECD 301 B	/
acetone	BOD	1900 mg/g	5 days	/	/	/
acetone	COD	2100 mg/g	/	/	/	/

## 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

No information.

## 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

Toxic to aquatic life with long lasting effects. Water hazard class (WGK): 3 (Self-assessment), very hazardous for water. Do not allow to reach ground water, water courses or sewage system.

### For components

#### **hydrocarbons, C7, n-alkanes, isoalkanes, cyclics**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. 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).

#### **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.

#### **carbon dioxide**

When discharged in large quantities may contribute to the greenhouse effect (GWP=1).

## 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
<b>14.1 UN number or ID number</b>			
UN 1950	UN 1950	UN 1950	UN 1950
<b>14.2 UN proper shipping name</b>			
AEROSOLS	AEROSOLS (hydrocarbons, C7, n-alkanes, isoalkanes, cyclics)	AEROSOLS	AEROSOLS
<b>14.3 Transport hazard class(es)</b>			
2	2	2	2
 	 	 	 
<b>14.4 Packing group</b>			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
<b>14.5 Environmental hazards</b>			
YES	Marine pollutant	YES	YES
<b>14.6 Special precautions for user</b>			
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
<b>14.7 Maritime transport in bulk according to IMO instruments</b>			
	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  
> 30%: aliphatic hydrocarbons

Special instructions  
No information.

### 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 8.2 Exposure controls 9.1 Information on basic physical and chemical properties

### 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.  
H280 Contains gas under pressure; may explode if heated.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
H361f Suspected of damaging fertility.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H411 Toxic to aquatic life with long lasting effects.

*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.*