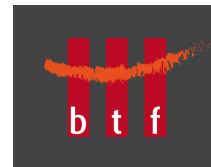


# SAFETY DATA SHEET according to Regulation 1907/2006

Product name: **Flüssigbutylspray**

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

### 1.1. Product identifier

Product name

**Flüssigbutylspray**



chemius.net/zEz94

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

Relevant identified uses

Adhesive.

Uses advised against

No information.

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

Supplier

btf Innovationen für den Bau GmbH

Address: Fahrenheitstr. 3, 86899 Landsberg am Lech, Germany

Phone: +49(0)819194040-0

Fax: +49(0)819194040-40

E-mail: info@btf-innovationen.de

### 1.4. Emergency telephone number

Emergency

112

Supplier

+49(0)819194040-0

## 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.

Skin Sens. 1; H317 May cause an allergic skin reaction.

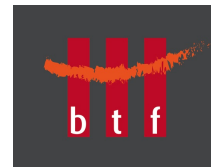
STOT SE 3; H336 May cause drowsiness or dizziness.

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

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## 2.2 Label elements

### 2.2.1. 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.

H317 May cause an allergic skin reaction.

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.

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 local/regional/national/international regulation.

### 2.2.2. Contains:

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (EC: 921-024-6)

colophonium (CAS: 8050-09-7, EC: 232-475-7, Index: 650-015-00-7)

### 2.2.3. Special provisions

Special hazards are not known or expected.

## 2.3. Other hazards

Vapors can form an explosive mixture with air.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

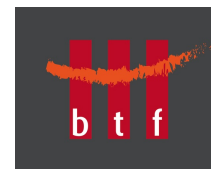
### 3.1. Substances

For mixtures see 3.2.

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## 3.2. Mixtures

Name	CAS EC Index	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Conc. Limits	REACH Registration No.
dimethyl ether	115-10-6 204-065-8 603-019-00-8	25-50	Flam. Gas 1; H220 Press. Gas; H280		01-2119472128-37
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	- 921-024-6 -	25-50	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411		01-2119475514-35
colophonium	8050-09-7 232-475-7 650-015-00-7	25-50	Skin Sens. 1; H317		01-2119480418-32
Acetone	67-64-1 200-662-2 606-001-00-8	2,5-<10	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066		01-2119471330-49
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 %	01-2119480412-44
zinc oxide	1314-13-2 215-222-5 030-013-00-7	<1	Aquatic Acute 1; H400 Aquatic Chronic 1; H410		01-2119463881-32

## 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. 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 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.

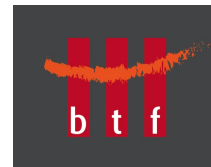
#### Following ingestion

Not likely. Accidental ingestion: Rinse mouth thoroughly with water. Do not induce vomiting! Immediately consult a doctor. Show the physician the safety data sheet or label.

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

### 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.

### Skin contact

Irritating to the skin.  
Itching, redness, pain.  
May cause sensitisation by skin contact (itching, redness, rashes).

### Eye contact

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

### 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.  
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

Water spray.  
Alcohol-resistant foam.  
Fire extinguishing powder.  
Carbon dioxide (CO<sub>2</sub>). 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 (CO<sub>2</sub>). Risk of formation of toxic pyrolysis products.

### 5.3. Advice for firefighters

#### Protective actions

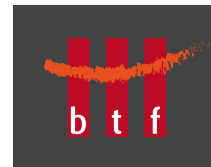
In case of fire evacuate the area. In case of fire or heating do not breathe fumes/vapours. In case of fire aerosols can explode and be propelled to considerable distances in different directions. Cool containers at risk with water spray. If possible remove containers from endangered area. No action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

#### Special protective equipment for firefighters

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

#### 6.1.1. For non-emergency personnel

##### **Protective equipment**

Use personal protective equipment (Section 8).

##### **Emergency procedures**

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

#### 6.1.2. 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

#### 6.3.1. For containment

Stem the spill if this does not pose risks.

#### 6.3.2. 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 a 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.

#### 6.3.3. Other information

-

### 6.4. Reference to other sections

See also Sections 8 and 13.

## SECTION 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

#### 7.1.1. Protective measures

##### **Measures to prevent fire**

Ensure adequate ventilation. Vapours and air form explosive mixtures. 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. Do not spray on a naked flame or incandescent material. 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.

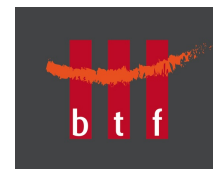
#### 7.1.2. Advice on general occupational hygiene

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.

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## 7.2. Conditions for safe storage, including any incompatibilities

### 7.2.1. Technical measures and storage conditions

Store in accordance with local regulations. Keep in well closed containers. Keep in cool and well ventilated area. 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.

### 7.2.2. Packaging materials

The original container of producer.

### 7.2.3. Requirements for storage rooms and vessels

Do not store in unlabelled containers.

### 7.2.4. Storage class

-

### 7.2.5. Further information on storage conditions

-

## 7.3. Specific end use(s)

### Recommendations

-

### Industrial sector specific solutions

-

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### 8.1.1. Occupational exposure limit values

Name (CAS)	Limit values		Short-term exposure limit		Remarks	Biological Tolerance Values
	ml/m <sup>3</sup> (ppm)	mg/m <sup>3</sup>	ml/m <sup>3</sup> (ppm)	mg/m <sup>3</sup>		
Rosin-based solder flux fume (8050-09-7)		0,05		0,15	Sen	
Dimethyl ether (115-10-6)	400	766	500	958		
Acetone (67-64-1)	500	1210	1500	3620		
n-Hexane (110-54-3)	20	72				
Normal and branched chain alkanes C5 – C6 (-)		1800				
Normal and branched chain alkanes ≥C7 (-)		1200				
Cycloalkanes C5 – C6 (-)		1800				
Cycloalkanes ≥C7 (-)		800				

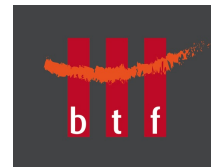
#### 8.1.2. Information on monitoring procedures

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 482:2012+A1:2015 Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values.

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## 8.1.3. DNEL/DMEL values

### For components

Name	Type	Exposure route	Exposure frequency	Value	Remark
dimethyl ether (115-10-6)	Worker	inhalation	long term (systemic effects)	1894 mg/m <sup>3</sup>	
dimethyl ether (115-10-6)	Consumer	inhalation	long term (systemic effects)	471 mg/m <sup>3</sup>	
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (-)	Worker	inhalation	long term (systemic effects)	2035 mg/m <sup>3</sup>	
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (-)	Worker	dermal	long term (systemic effects)	773 mg/kg bw/day	
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (-)	Consumer	inhalation	long term (systemic effects)	608 mg/m <sup>3</sup>	
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (-)	Consumer	dermal	long term (systemic effects)	699 mg/kg bw/day	
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (-)	Consumer	oral	long term (systemic effects)	699 mg/kg bw/day	
colophonium (8050-09-7)	Worker	inhalation	long term (local effects)	10 mg/m <sup>3</sup>	
colophonium (8050-09-7)	Worker	dermal	long term (systemic effects)	2,131 mg/kg bw/day	
colophonium (8050-09-7)	Consumer	dermal	long term (systemic effects)	1,065 mg/kg bw/day	
colophonium (8050-09-7)	Consumer	oral	long term (systemic effects)	1,065 mg/kg bw/day	

## 8.1.4. PNEC values

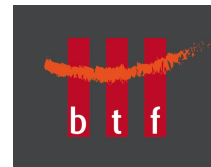
### For components

Name	Exposure route	Value	Remark
dimethyl ether (115-10-6)	fresh water	0,155 mg/L	
dimethyl ether (115-10-6)	marine water	0,016 mg/L	
dimethyl ether (115-10-6)	water, intermittent release	1,549 mg/L	fresh water
dimethyl ether (115-10-6)	water treatment plant	160 mg/L	
dimethyl ether (115-10-6)	fresh water sediment	0,681 mg/kg	dry weight
dimethyl ether (115-10-6)	marine water sediment	0,069 mg/kg	dry weight
dimethyl ether (115-10-6)	soil	0,045 mg/kg	dry weight
colophonium (8050-09-7)	fresh water	0,002 mg/L	
colophonium (8050-09-7)	water, intermittent release	0,016 mg/L	fresh water
colophonium (8050-09-7)	marine water	0 mg/L	
colophonium (8050-09-7)	water treatment plant	1000 mg/L	
colophonium (8050-09-7)	fresh water sediment	0,007 mg/kg	dry weight
colophonium (8050-09-7)	marine water sediment	0,001 mg/kg	dry weight
colophonium (8050-09-7)	soil	0 mg/kg	dry weight

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## 8.2. Exposure controls

### 8.2.1. Appropriate engineering control

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

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. 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.

#### 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. Remove all contaminated clothes immediately and wash them before reuse.

#### Technical measures to prevent exposure

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

### 8.2.2. Personal protective equipment

#### Eye and face protection

If there is a risk of eye contact use safety glasses. Safety goggles (EN 166).

#### Hand protection

Protective gloves (EN 374).

#### Skin protection

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

#### 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 (EN 136) with filter A2-P2 (EN 14387).

#### Thermal hazards

-

### 8.2.3. Environmental exposure controls

#### Technical measures to prevent exposure

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

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

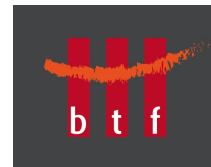
### 9.1. Information on basic physical and chemical properties

-	<b>Physical state:</b>	liquid; aerosol
-	<b>Colour:</b>	white to yellowish
-	<b>Odour:</b>	characteristic

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## Important health, safety and environmental information

-	<b>pH</b>	No information.
-	<b>Melting point/freezing point</b>	No information.
-	<b>Initial boiling point/boiling range</b>	No information.
-	<b>Flash point</b>	No information.
-	<b>Evaporation rate</b>	No information.
-	<b>Flammability (solid, gas)</b>	No information.
-	<b>Explosion limits (vol%)</b>	3,3 – 26,2 vol % (propellant)
-	<b>Vapour pressure</b>	246 hPa at 20 °C
-	<b>Vapour density</b>	No information.
-	<b>Density</b>	<b>Density:</b> 0,9 g/cm <sup>3</sup> at 20 °C (data refers to the liquid portion of the product)
-	<b>Solubility</b>	No information.
-	<b>Partition coefficient</b>	No information.
-	<b>Auto-ignition temperature</b>	No information.
-	<b>Decomposition temperature</b>	No information.
-	<b>Viscosity</b>	No information.
-	<b>Explosive properties</b>	No information.
-	<b>Oxidising properties</b>	No information.

## 9.2. Other information

-	<b>Remarks:</b>	
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## 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

Oxidants. HF (hydrofluoric acid). Oxygen. Rubber. Viton.

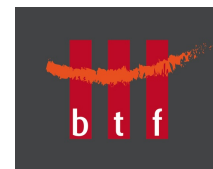
### 10.6. Hazardous decomposition products

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

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## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### (a) Acute toxicity

Name	Exposure route	Type	Species	Time	Value	Method	Remark
dimethyl ether (115-10-6)	Inhalation (gases)	LC <sub>50</sub>	rat	4 h	309 mg/l		
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (-)	oral	LD <sub>50</sub>	rat		> 5840 mg/kg		
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (-)	dermal	LD <sub>50</sub>	rat		> 2920 mg/kg		
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (-)	inhalation	LC <sub>50</sub>	rat	4 h	> 25,2 mg/l		
Acetone (67-64-1)	oral	LD <sub>50</sub>	rat		5800 mg/kg		
Acetone (67-64-1)	dermal	LD <sub>50</sub>	rabbit		> 7426 mg/kg		
Acetone (67-64-1)	inhalation	LC <sub>50</sub>	rat	3 h	55700 ppm		

**Additional information:** The product is not classified for acute toxicity.

#### (b) Skin corrosion/irritation

Name	Species	Time	Result	Method	Remark
dimethyl ether (115-10-6)			May cause frostbite.		

**Additional information:** Causes skin irritation.

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

**Additional information:** The product is not classified as an irritant to the eyes.

#### (d) Respiratory or skin sensitisation

**Additional information:** May cause an allergic skin reaction.

#### (e) (Germ cell) mutagenicity

Name	Type	Species	Time	Result	Method	Remark
dimethyl ether (115-10-6)				The chemical is not classified as mutagenic.		
dimethyl ether (115-10-6)	in-vitro mutagenicity			Negative.	OECD 471	Ames test
dimethyl ether (115-10-6)	in-vitro mutagenicity	Human (lymphocytes)		Negative.	cytogenetic test	OECD 473
dimethyl ether (115-10-6)	in-vivo mutagenicity	<i>Drosophila melanogaster</i>		Negative.	OECD 477	

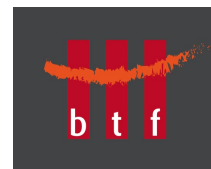
#### (f) Carcinogenicity

Name	Exposure route	Type	Species	Time	Value	Result	Method	Remark
dimethyl ether (115-10-6)						Substance is not classified as carcinogenic.		

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## (g) Reproductive toxicity

Name	Reproductive toxicity type	Type	Species	Time	Value	Result	Method	Remark
dimethyl ether (115-10-6)	Reproductive toxicity	inhalation	rat		47 mg/L	Animal testing did not show any effects on fertility.	OECD 452	
dimethyl ether (115-10-6)	Maternal toxicity	NOAEL	rat		5000 ppm			Inhalation
dimethyl ether (115-10-6)	Teratogenicity	NOAEL	rat		40000 ppm			Inhalation
dimethyl ether (115-10-6)	Developmental toxicity	NOAEL	rat		40000 ppm			Inhalation
dimethyl ether (115-10-6)	-	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

**Additional information:** May cause drowsiness or dizziness.

## (i) STOT-repeated exposure

Name	Exposure route	Type	Species	Time	Organ	Value	Result	Method	Remark
dimethyl ether (115-10-6)	Repeated dose toxicity	NOEL	rat	2 years		47 mg/L		OECD 452	inhalation

**Additional information:** STOT RE (repeated exposure): Not classified.

## (j) Aspiration hazard

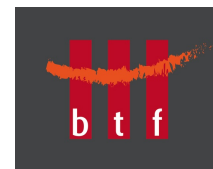
Name	Result	Method	Remark
dimethyl ether (115-10-6)	Aspiration hazard: Not Classified.		

**Additional information:** May be fatal if swallowed and enters airways.

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## SECTION 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### 12.1.1. Acute (short-term) toxicity

##### For components

Substance (CAS Nr.)	Type	Value	Exposure time	Species	Organism	Method	Remark
dimethyl ether (115-10-6)	LC <sub>50</sub>	> 4,1 mg/L	96 h	fish	<i>Poecilia reticulata</i>		Semi-Static system
	EC <sub>50</sub>	> 4,4 mg/L	48 h	crustacea	<i>Daphnia magna</i>		static test
	LC <sub>50</sub>	755,5 mg/L	48 h	<i>Daphnia</i>		ECOSAR	
	EC <sub>50</sub>	154,9 mg/L	96 h	algae		ECOSAR	
	EC <sub>10</sub>	> 1600 mg/L		bacteria	<i>Pseudomonas putida</i>		static test
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (-)	LL <sub>50</sub>	11,4 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>	OECD 203	
	EL <sub>50</sub>	3 mg/L	48 h	crustacea	<i>Daphnia magna</i>		
Acetone (67-64-1)	LC <sub>50</sub>	7280 mg/L	96 h	fish			
	LC <sub>50</sub>	8800 mg/L	48 h	crustacea	<i>Daphnia</i>		

#### 12.1.2. Chronic (long-term) toxicity

##### For components

Substance (CAS Nr.)	Type	Value	Exposure time	Species	Organism	Method	Remark
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (-)	NOELR	2,045 mg/l	28 days	fish	<i>Oncorhynchus mykiss</i>	QSAR	
	NOELR	1 mg/l	21 days	crustacea	<i>Daphnia magna</i>	OECD 211	
Acetone (67-64-1)	EC <sub>50</sub>	2844 mg/l	14 days	algae			

### 12.2. Persistence and degradability

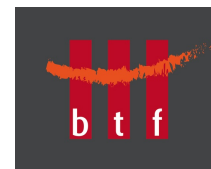
#### 12.2.1. Abiotic degradation, physical- and photo-chemical elimination

No information.

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## 12.2.2. Biodegradation

### **For components**

Substance (CAS Nr.)	Type	Rate	Time	Evaluation	Method	Remark
dimethyl ether (115-10-6)	aerobic	5 %	28 days	not readily biodegradable	OECD 301 D	activated sludge
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (-)	-			readily biodegradable		
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (-)	biodegradability	83 %	10 days			
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (-)	biodegradability	98 %	28 days			

## **12.3. Bioaccumulative potential**

### 12.3.1. Partition coefficient

No information.

### 12.3.2. Bioconcentration factor (BCF)

No information.

## **12.4. Mobility in soil**

### 12.4.1. Known or predicted distribution to environmental compartments

No information.

### 12.4.2. Surface tension

No information.

### 12.4.3. Adsorption/Desorption

#### **For components**

Substance (CAS Nr.)	Type	Criterion	Value	Evaluation	Method	Remark
dimethyl ether (115-10-6)	Soil			Moderate mobility in soil.		

## **12.5. Results of PBT and vPvB assessment**

No evaluation.

## **12.6. Other adverse effects**

No information.

## **12.7. Additional information**

### **For product**

Toxic to aquatic life with long lasting effects.

Water hazard class 2 (self-assessment): hazardous for water.

Avoid release to the environment.

### **For components**

#### **Substance: dimethyl ether**

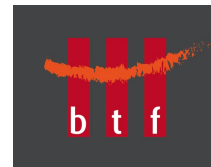
Bioaccumulation is not expected.

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).

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## SECTION 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

#### 13.1.1. 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

#### 13.1.2. Waste treatment-relevant information

-

#### 13.1.3. Sewage disposal-relevant information

-

#### 13.1.4. Other disposal recommendations

-

## SECTION 14. TRANSPORT INFORMATION

### 14.1. UN number

UN 1950

### 14.2. UN proper shipping name

AEROSOLS

IMDG name: AEROSOLS (hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)

### 14.3. Transport hazard class(es)

2

### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

Additional labeling: ENVIRONMENTALLY HAZARDOUS

IMDG: MARINE POLLUTANT

### 14.6. Special precautions for user

#### Limited quantities

1 L

#### Tunnel restriction code

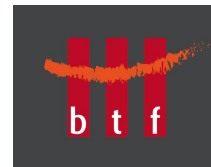
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## IMDG EmS

F-D, S-U

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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) 2015/830)
- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

#### 15.1.1. Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

Not applicable.

### 15.2. Chemical Safety Assessment

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

## SECTION 16. OTHER INFORMATION

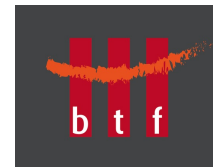
### Indication of changes

-

### Abbreviations and acronyms

ATE - Acute Toxicity Estimate  
ADR - European 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

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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  
LC<sub>50</sub> - Lethal Concentration to 50 % of a test population  
LD<sub>50</sub> - 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

## Key literature references and sources for data

-

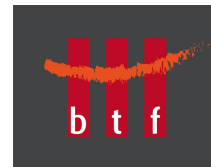
## List of relevant H phrases

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.  
H317 May cause an allergic skin reaction.  
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 .  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.  
EUH066 Repeated exposure may cause skin dryness or cracking.

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- ☒ Provided correct labelling of the product
- ☒ Compliance with the local legislation
- ☒ Provided correct classification of the product
- ☒ Provided adequate transport data

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