



## SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

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

#### 1.1. Product identifier

Product name : FRESHMAT

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

Spray adhesive.

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

Company : plattix – is a Division of medacom GmbH  
Address : R.-Samesreutherstr. 25, 35510 Butzbach, Germany  
Phone : +49 60 33/74 888 0 Fax : +49 6033 4649  
Email: info@plottix.de  
<https://www.plottix.de>

#### 1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : ORFILA <http://www.centres-antipoison.net>.

#### Other emergency numbers

National Poisons Information Service of England: <http://npis.org> - NHS 111: dial 111 - National Poisons Information Centre of Ireland: 353 (1) 809 2166 - European Emergency Number Association (EENA) : 112

### SECTION 2 : HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

##### In compliance with EC regulation No. 1272/2008 and its amendments.

Aerosol, Category 1 (Aerosol 1, H222 - H229).  
Repeated exposure may cause skin dryness or cracking (EUH066).  
Eye irritation, Category 2 (Eye Irrit. 2, H319).  
Specific target organ toxicity (single exposure), Category 3 (STOT SE 3, H336).  
This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.  
The propellant gas is not taken into account when determining the health and environmental classification of the mixture.

#### 2.2. Label elements

Mixture for aerosol application.

##### In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS02



GHS07

Signal Word :

DANGER

Product identifiers :

607-022-00-5

ETHYL ACETATE

Additional labeling :

Hazard statements :

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.
Precautionary statements - General :	
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
Precautionary statements - Prevention :	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statements - Response :	
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor/if you feel unwell.
P337 + P313	If eye irritation persists: Get medical advice/attention.
Precautionary statements - Storage :	
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Precautionary statements - Disposal :	
P501	Dispose of contents/container at a disposal facility in accordance with local regulations.

### 2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC)  $\geq 0.1\%$  published by the European Chemicals Agency (ECHA) under article 59 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances  $\geq 0.1\%$  with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

## SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

#### Composition :

Identification	Classification (EC) 1272/2008	Note	%
CAS: 115-10-6 EC: 204-065-8 REACH: 01-2119472128-37  DIMETHYL ETHER	GHS02 Dgr Flam. Gas 1A, H220 Press. Gas, H280	[i] [vii]	50 $\leq$ x % < 100
CAS: 106-97-8 EC: 203-448-7 REACH: 01-2119474691-32  BUTANE	GHS02 Dgr Flam. Gas 1A, H220 Press. Gas, H280	C [i] [vii]	10 $\leq$ x % < 25
CAS: 109-87-5 EC: 203-714-2 REACH: 01-2119664781-31  DIMETHOXYMETHANE	GHS02 Dgr Flam. Liq. 2, H225	[i]	2.5 $\leq$ x % < 10
INDEX: 607-022-00-5 CAS: 141-78-6 EC: 205-500-4 REACH: 01-2119475103-46  ETHYL ACETATE	GHS02, GHS07 Dgr Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	[i]	2.5 $\leq$ x % < 10
CAS: 74-98-6 EC: 200-827-9 REACH: 01-2119486944-21  PROPANE	GHS02 Dgr Flam. Gas 1A, H220 Press. Gas, H280	[i] [vii]	2.5 $\leq$ x % < 10
CAS: 68186-14-1 EC: 269-035-9 REACH: 01-2119969274-28	Aquatic Chronic 3, H412		1 $\leq$ x % < 2.5

METHYL ABIETATE CAS: 7631-86-9 EC: 231-545-4 REACH: 01-2119379499-16		[i]	0.1 <= x % < 1
SILICON DIOXIDE CAS: 14807-96-6 EC: 238-877-9		[i]	0 <= x % < 0.1
TALC (MG3H2(SIO3)4) CAS: 1332-58-7 EC: 310-194-1		[i]	0 <= x % < 0.1
KAOLIN			

**Specific concentration limits:**

Identification	Specific concentration limits	ATE
CAS: 115-10-6 EC: 204-065-8 REACH: 01-2119472128-37		inhalation: ATE = 312 mg/l 4h (dust/mist)
DIMETHYL ETHER CAS: 109-87-5 EC: 203-714-2 REACH: 01-2119664781-31		dermal: ATE = 5000 mg/kg BW oral: ATE = 6423 mg/kg BW
DIMETHOXYMETHANE		

**Information on ingredients :**

(Full text of H-phrases: see section 16)

[i] Substance for which maximum workplace exposure limits are available.

[vii] Propellant gas

**SECTION 4 : FIRST AID MEASURES**

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

**4.1. description of first aid measures****In the event of exposure by inhalation :**

In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.

If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

**In the event of splashes or contact with eyes :**

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

If there is any redness, pain or visual impairment, consult an ophthalmologist.

**In the event of splashes or contact with skin :**

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

**In the event of swallowing :**

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention, showing the label.

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

No data available.

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

No data available.

**SECTION 5 : FIREFIGHTING MEASURES**

Flammable.

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

**5.1. Extinguishing media**

Keep packages near the fire cool, to prevent pressurised containers from bursting.

**Suitable methods of extinction**

In the event of a fire, use :

- sprayed water or water mist
- water with AFFF (Aqueous Film Forming Foam) additive
- halon
- multipurpose ABC powder
- BC powder

Prevent the effluent of fire-fighting measures from entering drains or waterways.

**Unsuitable methods of extinction**

In the event of a fire, do not use :

- water jet

**5.2. Special hazards arising from the substance or mixture**

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

**5.3. Advice for firefighters**

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

**SECTION 6 : ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures**

Consult the safety measures listed under headings 7 and 8.

**For non first aid worker**

Because of the organic solvents contained in the mixture, eliminate sources of ignition and ventilate the area.

Avoid inhaling the vapors.

Avoid any contact with the skin and eyes.

If a large quantity has been spilled, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

**For first aid worker**

First aid workers will be equipped with suitable personal protective equipment (See section 8).

**6.2. Environmental precautions**

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

**6.3. Methods and material for containment and cleaning up**

Clean preferably with a detergent, do not use solvents.

**6.4. Reference to other sections**

No data available.

**SECTION 7 : HANDLING AND STORAGE**

Requirements relating to storage premises apply to all facilities where the mixture is handled.

**7.1. Precautions for safe handling**

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

**Fire prevention :**

Handle in well-ventilated areas.

Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Do not spray on a naked flame or any incandescent material.

Do not pierce or burn, even after use.

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Do not use tools which may produce sparks. Do not smoke.

Prevent access by unauthorised personnel.

#### Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Do not breathe in aerosols.

Avoid inhaling vapors.

Avoid inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.

Provide vapor extraction at the emission source and also general ventilation of the premises.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.

In all cases, recover emissions at source.

Avoid skin and eye contact with this mixture.

Packages which have been opened must be reclosed carefully and stored in an upright position.

#### Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

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

No data available.

#### Storage

Keep out of reach of children.

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C.

#### Packaging

Always keep in packaging made of an identical material to the original.

#### 7.3. Specific end use(s)

No data available.

## SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Occupational exposure limits :

- European Union (2022/431, 2019/1831, 2017/2398, 2017/164, 2009/161, 2006/15/CE, 2000/39/CE, 98/24/CE) :

CAS	VME-mg/m3 :	VME-ppm :	VLE-mg/m3 :	VLE-ppm :	Notes :
115-10-6	1920	1000	-	-	-
141-78-6	734	200	1468	400	-

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
106-97-8	1000 ppm				
109-87-5	1000 ppm				
141-78-6	400 ppm				
74-98-6	1000 ppm				
14807-96-6	2 (E.R) mg/m3			A4	
1332-58-7	2 (E.R) mg/m3			A4	

- Germany - AGW (BAuA - TRGS 900, 02/2022) :

CAS	VME :	VME :	Excess	Notes
115-10-6		1000 ppm 1900 mg/m3		8(II)
106-97-8		1000 ppm 2400 mg/m3		4(II)
109-87-5		500 ppm 1600 mg/m3		2(II)
141-78-6		200 ppm 730 mg/m3		2(I)
74-98-6		1000 ppm 1800 mg/m3		4(II)
7631-86-9		4E mg/m3		

- Australia (NOHSC: 3008, 1995) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
115-10-6	400 ppm 760 mg/m3	500 ppm 950 mg/m3			

106-97-8	800 ppm 1900 mg/m3			H	
109-87-5	1000 ppm 3110 mg/m3			H	
141-78-6	200 ppm 720 mg/m3	400 ppm 1440 mg/m3			
7631-86-9	2 mg/m3			A	
14807-96-6	2.5 mg/m3			A*	
1332-58-7	10 mg/m3			H	

- Austria (BGBl. II Nr. 156/2021) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
115-10-6	1000 ppm 1910 mg/m3	2000 ppm 3820 mg/m3			
106-97-8	800 ppm 1900 mg/m3	1600 ppm 3800 mg/m3			
109-87-5	1000 ppm 3100 mg/m3				
141-78-6	200 ppm 734 mg/m3	400 ppm 1468 mg/m3			
74-98-6	1000 ppm 1800 mg/m3	2000 ppm 3600 mg/m3			
14807-96-6	2A mg/m3				

- Belgium (Royal decree of 11/05/2021) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
115-10-6	1000 ppm 1920 mg/m3				
106-97-8		980 ppm 2370 mg/m3			
109-87-5	1000 ppm 3155 mg/m3				
141-78-6	200 ppm 734 mg/m3	400 ppm 1468 mg/m3			
74-98-6	1000 ppm				
14807-96-6	2 mg/m3				
1332-58-7	2 mg/m3				

- France (INRS - Outils 65 / 2021-1849, 2021-1763, decree of 09/12/2021) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
115-10-6	1000	1920			VLRI	
106-97-8	800	1900				
109-87-5	1000	3100				84
141-78-6	200	734	400	1468	VLRC	84
1332-58-7		10				25

- Switzerland (Suva 2021) :

CAS	VME	VLE	Valeur plafond	Notations
115-10-6	1000 ppm 1910 mg/m3			
106-97-8	800 ppm 1900 mg/m3	3200 ppm 7600 mg/m3		
109-87-5	1000 ppm 3100 mg/m3	2000 ppm 6200 mg/m3		SSC
141-78-6	200 ppm 730 mg/m3	400 ppm 1460 mg/m3		SSC
74-98-6	1000 ppm 1800 mg/m3	4000 ppm 7200 mg/m3		
7631-86-9	4 mg/m3			SSC
14807-96-6	3 mg/m3			SSC
1332-58-7	3 mg/m3			

- UK / WEL (Workplace exposure limits, EH40/2005, Fourth Edition 2020) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
115-10-6	400 ppm 766 mg/m3	500 ppm 958 mg/m3			
106-97-8	600 ppm 1450 mg/m3	750 ppm 1810 mg/m3		Carc	
109-87-5	1000 ppm	1250 ppm			

	3160 mg/m3	3950 mg/m3			
141-78-6	200 ppm 734 mg/m3	400 ppm 1468 mg/m3			
14807-96-6	1 mg/m3				
1332-58-7	2 mg/m3				

- USA / OSHA PEL (Occupational Safety and Health Administration, Permissible Exposure Limits) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
109-87-5	1000 ppm 3100 mg/m3				
141-78-6	400 ppm 1400 mg/m3				
74-98-6	1000 ppm 1800 mg/m3				
14807-96-6	20 mppcf	-	-	-	-
1332-58-7	15 mg/m3				

- USA / AIHA WEEL (American Industrial Hygiene Association, Workplace Environmental Exposure Limit, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
115-10-6	1000 ppm				

## 8.2. Exposure controls

### Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

#### - Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard ISO 16321.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

#### - Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- PVA (Polyvinyl alcohol)

#### - Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

#### - Respiratory protection

Avoid inhaling vapors.

If the ventilation is insufficient, wear appropriate breathing apparatus.

When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

Type of FFP mask :

Wear a disposable half-mask aerosol filter in accordance with standard EN149/A1.

Category :

- FFP1
- Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :
- A1 (Brown)
- Particle filter according to standard EN143 :
- P1 (White)

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

Physical state :	Fluid liquid.
	Spray.

**Colour**

Colour:	Not stated.
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**Odour**

Odour threshold :	Not stated.
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**Freezing point**

Freezing point / Freezing range :	Not stated.
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**Boiling point or initial boiling point and boiling range**

Boiling point/boiling range :	Not relevant.
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**Flammability**

Flammability (solid, gas) :	Not stated.
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**Lower and upper explosion limit**

Explosive properties, lower explosivity limit (%) :	Not stated.
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Explosive properties, upper explosivity limit (%) :	Not stated.
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**Flash point**

Flash point interval :	Not relevant.
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**Auto-ignition temperature**

Self-ignition temperature :	Not relevant.
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**Decomposition temperature**

Decomposition point/decomposition range :	Not relevant.
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**pH**

pH (aqueous solution) :	Not stated.
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pH :	Not relevant.
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**Kinematic viscosity**

Viscosity :	Not stated.
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**Solubility**

Water solubility :	Insoluble.
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Fat solubility :	Not stated.
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**Partition coefficient n-octanol/water (log value)**

Partition coefficient: n-octanol/water :	Not stated.
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**Vapour pressure**

Vapour pressure (50°C) :	Below 110 kPa (1.10 bar).
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**Density and/or relative density**

Density :	< 1
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**Relative vapour density**

Vapour density :	Not stated.
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**Particle characteristics**

The mixture does not contain nanoforms.

**9.2. Other information**

No data available.

**9.2.1. Information with regard to physical hazard classes**

No data available.

**Aerosols**

Chemical combustion heat :	Not specified.
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Inflammation time :	Not specified.
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Deflagration density :	Not specified.
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Inflammation distance :	Not specified.
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Flame height :	Not specified.
Flame duration :	Not specified.

**9.2.2. Other safety characteristics**

No data available.

**SECTION 10 : STABILITY AND REACTIVITY****10.1. Reactivity**

No data available.

**10.2. Chemical stability**

This mixture is stable under the recommended handling and storage conditions in section 7.

**10.3. Possibility of hazardous reactions**

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

**10.4. Conditions to avoid**

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Avoid :

- heating
- heat

**10.5. Incompatible materials**

Keep away from :

- strong acids
- strong oxidising agents

**10.6. Hazardous decomposition products**

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

**SECTION 11 : TOXICOLOGICAL INFORMATION****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

May have reversible effects on the eyes, such as eye irritation which is totally reversible by the end of observation at 21 days.

Splashes in the eyes may cause irritation and reversible damage

Narcotic effects may occur, such as drowsiness, narcosis, decreased alertness, loss of reflexes, lack of coordination or dizziness.

Effects may also occur in the form of violent headaches or nausea, judgement disorder, giddiness, irritability, fatigue or memory disturbance.

**11.1.1. Substances****Acute toxicity :**

DIMETHYL ETHER (CAS: 115-10-6)

Inhalation route (Dusts/mist) :

LC50 = 312 mg/l

Species : Rat

Duration of exposure : 4 h

DIMETHOXYMETHANE (CAS: 109-87-5)

Oral route :

LD50 = 6423 mg/kg bodyweight/day

Species : Rat

OECD Guideline 423 (Acute Oral toxicity Acute Toxic Class Method)

Dermal route :

LD50 = 5000 mg/kg bodyweight/day

Species : Rabbit

OECD Guideline 402 (Acute Dermal Toxicity)

**11.1.2. Mixture**

No toxicological data available for the mixture.

**11.2. Information on other hazards**

**Endocrine disrupting properties**

The mixture does not contain any substance evaluated as an endocrine disruptor with effects on human health.

**Monograph(s) from the IARC (International Agency for Research on Cancer) :**

CAS 14807-96-6 : IARC Group 2B : The agent is possibly carcinogenic to humans.

CAS 7631-86-9 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

**SECTION 12 : ECOLOGICAL INFORMATION****12.1. Toxicity****12.1.1. Substances**

DIMETHYL ETHER (CAS: 115-10-6)

Fish toxicity : LC50 > 4.1 mg/l  
Duration of exposure : 96 h

Crustacean toxicity : EC50 > 4.4 mg/l  
Duration of exposure : 48 h

Algae toxicity : ECr50 = 154.9 mg/l  
Duration of exposure : 72 h

DIMETHOXYMETHANE (CAS: 109-87-5)

Fish toxicity : LC50 > 1000 mg/l  
Duration of exposure : 96 h

NOEC = 450.281 mg/l

Crustacean toxicity : EC50 > 1200 mg/l  
Species : Daphnia magna  
Duration of exposure : 48 h

Algae toxicity : ECr50 = 9120 mg/l  
Species : Scenedesmus subspicatus  
Duration of exposure : 72 h

**12.1.2. Mixtures**

No aquatic toxicity data available for the mixture.

**12.2. Persistence and degradability****12.2.1. Substances**

DIMETHOXYMETHANE (CAS: 109-87-5)

Biodegradability : Non-rapidly degradable.

DIMETHYL ETHER (CAS: 115-10-6)

Biodegradability : Non-rapidly degradable.

**12.3. Bioaccumulative potential****12.3.1. Substances**

DIMETHOXYMETHANE (CAS: 109-87-5)

Octanol/water partition coefficient : log K<sub>ow</sub> = 0

Bioaccumulation : BCF < 100.

DIMETHYL ETHER (CAS: 115-10-6)

Octanol/water partition coefficient : log K<sub>ow</sub> = 0.07

**12.4. Mobility in soil**

No data available.

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

No data available.

**12.6. Endocrine disrupting properties**

The mixture does not contain any substance evaluated as an endocrine disruptor with environmental effects.

**12.7. Other adverse effects**

No data available.

**German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws) :**

WGK 1 : Slightly hazardous for water.

**SECTION 13 : DISPOSAL CONSIDERATIONS**

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

**13.1. Waste treatment methods**

Do not pour into drains or waterways.

**Waste :**

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

**Soiled packaging :**

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

**SECTION 14 : TRANSPORT INFORMATION**

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2023 - IMDG 2022 [41-22] - ICAO/IATA 2024 [65]).

**14.1. UN number or ID number**

1950

**14.2. UN proper shipping name**

UN1950=AEROSOLS, flammable

**14.3. Transport hazard class(es)**

- Classification :



2.1

**14.4. Packing group**

-

**14.5. Environmental hazards**

-

**14.6. Special precautions for user**

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	2	5F	-	2.1	-	1 L	190 327 344 625	E0	2	D
IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation	
	2	See SP63	-	See SP277	F-D. S-U	63 190 277 327 344 381 959	E0	- SW1 SW22	SG69	
IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ	
	2.1	-	-	203	75 kg	203	150 kg	A145 A167 A802	E0	
	2.1	-	-	Y203	30 kg G	-	-	A145 A167 A802	E0	

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

**14.7. Maritime transport in bulk according to IMO instruments**

No data available.

**SECTION 15 : REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Classification and labelling information included in section 2:**

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2023/707.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2024/197. (ATP 21)

**Container information:**

No data available.

**Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):**

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH):  
<https://echa.europa.eu/substances-restricted-under-reach>.

**Explosives precursors :**

The mixture does not contain any substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

**Particular provisions :**

No data available.

**German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws) :**

WGK 1 : Slightly hazardous for water.

**Swiss ordinance on the incentive tax on volatile organic compounds :**

141-78-6	acétate d'éthyle
115-10-6	éther diméthylque (oxyde de diméthyle)
106-97-8	n-butane
74-98-6	propane

**15.2. Chemical safety assessment**

No data available.

**SECTION 16 : OTHER INFORMATION**

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

**Wording of the phrases mentioned in section 3 :**

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

**Abbreviations and acronyms :**

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

EC50 : The effective concentration of substance that causes 50% of the maximum response.

ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.

NOEC : The concentration with no observed effect.

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

ATE : Acute Toxicity Estimate

BW : Body Weight

STEL : Short-term exposure limit

TWA : Time Weighted Averages

TMP : French Occupational Illness table

TLV : Threshold Limit Value (exposure)

AEV : Average Exposure Value.

VLRI : Indicative limit value

VLRC : Indicative constraint value

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefährdungsklasse (Water Hazard Class).

GHS02 : Flame

GHS07 : Exclamation mark

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.