



## 1.) Identification of the substance/preparation and of the company/undertaking

### Identification of the substance or preparation

**Trade name**

MARABU-SILK EASY FIX

**Use of the substance/preparation**

Aerosol

### Company/undertaking identification

**Address**

Marabu GmbH & Co KG  
Asperger Straße 4  
D-71732 Tamm

Telephone no.           (++)49-7141/691-0

Fax no.                   (++)49-7141/691-117

**E-mail address of person responsible for this SDS**

PRSI@marabu.de

**Information provided by / telephone**

Product safety +49 7141/691-116 or 232

**Emergency telephone**

++49-621-60-43333

## 2.) Hazards possibilities

**Classification**

F+	R12
Xi	R36
	R66-67

**R phrases**

36	Irritating to eyes.
66	Repeated exposure may cause skin dryness or cracking.
67	Vapours may cause drowsiness and dizziness.

**Specific hazards to man and the environment**

The product is water polluting.

## 3.) Composition / information on ingredients

**Chemical characterization**

Reactive agent solution: Polyvinyl ether in solvents  
Propellant: Propane-butane

**Hazardous ingredients**

**ETHYL ACETATE**

CAS no.	141-78-6				
EINECS no.	205-500-4				
Concentration	>= 25	<	50	%-b.w.	
Classification	F;R11				
	Xi;R36				
	R66				
	R67				

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**BUTANE**

CAS no.	106-97-8			
EINECS no.	203-448-7			
Concentration	>= 10	<	25	%-b.w.
Classification	F+;R12			

**ACETONE**

CAS no.	67-64-1			
EINECS no.	200-662-2			
Concentration	>= 10	<	25	%-b.w.
Classification	F;R11 Xi;R36 R66 R67			

**N-BUTYL ACETATE**

CAS no.	123-86-4			
EINECS no.	204-658-1			
Concentration	>= 5	<	10	%-b.w.
Classification	R10 R66 R67			

**ETHANOL**

CAS no.	64-17-5			
EINECS no.	200-578-6			
Concentration	>= 1	<	5	%-b.w.
Classification	F;R11			

#### 4.) First aid measures

**General information**

Immediately remove all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical attention. Unconsciousness: lateral position - call a physician.

**After inhalation**

Take the casualty into the fresh air and keep warm. Irregular breathing/no breathing: artificial respiration. Call a physician.

**After skin contact**

Wash away with soap and water and rinse. Do NOT use solvents or thinners!

**After eye contact**

Flush with plenty of water (10 - 15 min.). Call a physician.

**After ingestion**

Call a physician. Keep at rest. Do not induce vomiting.

#### 5.) Fire-fighting measures

**Suitable extinguishing media**

Carbon dioxide, dry powder or water spray jet. For bigger fires, use water spray jet. In the event of a fire, remove where possible undamaged cans from the danger zone. Alternatively cool with water. Danger of explosion.

**Extinguishing media that must not be used for safety reasons**

Water jet.



**Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases**

In case of fire, dangerous smoke gases such as carbon dioxide, carbon monoxide and soot can be produced. Therefore, take suitable precautionary measures for fire fighting. Residues remaining after a fire have to be disposed of appropriately.

**Special protective equipment for fire-fighting**

Breathing apparatus with an independent source of air may be required.

**Other information**

Cool endangered containers with water in case of fire.

**6.) Accidental release measures**

**Personal precautions**

Keep away from sources of ignition. Provide for good ventilation. Do not breathe vapours. Refer to protective measures listed in sections 7 and 8.

**Environmental precautions**

Do not empty into drains. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

**Methods for cleaning up**

Remove by liquid absorbing material (e.g. kieselguhr) and process according to waste regulations. Clean preferably with a detergent; avoid use of solvents.

**7.) Handling and storage**

**Handling**

**Advice on safe handling**

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the workplace exposure limit. Do not leave containers open. The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Avoid contact with skin and eyes. Avoid inhalation of vapour and spray mist. When using do not eat, drink or smoke. Comply with the health and safety at work laws.

**Advice on protection against fire and explosion**

Keep away from ignition sources - No smoking. Do not store alongside highly flammable materials. Operators should wear antistatic footwear and clothing. No sparking tools should be used.

**Classification of fires**

C (Flammable gases)

**Storage**

**Requirements for storage rooms and vessels**

Gases in pressurized containers should not be allowed to be heated over 50°C by sunshine or other heat sources. Regard special prescriptions for storage of pressurized containers.

**Hints on storage assembly**

Do not store alongside highly flammable materials.

**Further information on storage conditions**

Keep away from sources of ignition. Keep containers dry and cool.

**8.) Expose controls/personal protection**

**Exposure limit values**

**BUTANE**

WEL (EH40/2005)

Value	600	ml/m <sup>3</sup>	1450	mg/m <sup>3</sup>
STEL	750	ml/m <sup>3</sup>	1810	mg/m <sup>3</sup>

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**ETHANOL**

WEL (EH40/2005)

Value 1000 ml/m<sup>3</sup> 1920 mg/m<sup>3</sup>**ACETONE**

2000/39/EC

Value 500 ml/m<sup>3</sup> 1210 mg/m<sup>3</sup>

WEL (EH40/2005)

Value 500 ml/m<sup>3</sup> 1210 mg/m<sup>3</sup>STEL 1500 ml/m<sup>3</sup> 3620 mg/m<sup>3</sup>**ETHYL ACETATE**

WEL (EH40/2005)

Value 200 ml/m<sup>3</sup>STEL 400 ml/m<sup>3</sup>**N-BUTYL ACETATE**

WEL (EH40/2005)

Value 150 ppm 724 mg/m<sup>3</sup>STEL 200 ppm 966 mg/m<sup>3</sup>**Exposure controls**

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If this is insufficient to keep the concentration of the propellant and of the vapours of the solvents contained in this product be low the OEL, suitable respiratory protection must be worn.

**Occupational exposure controls****Respiratory protection**

Breathing protection equipment required in inadequately ventilated workplaces.

Respiratory filter (gas) : A

Respiratory filter (part): P2

**Hand protection**

Chemical protection gloves are suitable, which are tested according to EN 374.

Recommendation for protection against components normally found in the products:

For short-term contact (e.g. spray protection) as well as for long-term contact (e.g. cleaning purposes):

Suitable material: LLDPE

Material thickness: 0.06 mm

Penetration time: &gt;480 min.

Protective gloves must always be tested and confirmed with regard to suitability to each specific working environment (e.g. mechanical resistance, product compatibility, antistatic).

Follow the instructions and information from the glove manufacturer in reference to use, storage, care, and frequency of glove exchange.

Protective gloves should be immediately replaced upon being damaged or when showing first signs of wear. Preventive skin protection (skin protective cream) is recommended. Contaminated skin areas should immediately be washed (follow data sheet for skin protection M 042).

Working procedures are to be so arranged that the permanent wearing of gloves will not be necessary.

We recommend to set up a hand protection plan, which is adapted to the needs of the local business. Further information is provided in the publications of Bundesverband Handschutz (nos. 6 and 9) and BG Druck und Papierverarbeitung (528.1, 528.2, 531.X).



**Eye protection**

Use safety glasses.

**Skin protection**

Personal should wear antistatic clothing made of natural fibre or of high temperature resistant synthetic fibre. All parts of the body should be washed after contact. Use re-greasing skin cream.

**General protective and hygiene measures**

The usual precautionary measures for the handling of chemicals have to be observed.

**9.) Physical and chemical properties**

**General information**

Form	Aerosol
Colour	clear, colourless
Odour	like solvent

**Important health, safety and environmental information**

**Changes in physical state**

Type	Boiling point
Value	not applicable

**Flash point**

Value	not applicable
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**Ignition temperature**

Value	not applicable
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**Explosion limits**

Upper explosion limit	13,0	% vol
Lower explosion limit	1,5	% vol

**Vapour pressure**

Value	8300	hPa
Reference temperature	20	°C

**Density**

Value	not applicable	
Reference temperature	20	°C

**Solubility in water**

Remarks	parts of solvents
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**pH value**

Remarks	not applicable
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**10.) Stability and reactivity**

**Conditions to avoid**

Stable under recommended storage and handling conditions (See section 7).

**Materials to avoid**

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

**Hazardous decomposition products**

When exposed to high temperatures, dangerous decomposition products such as carbon dioxide, carbon monoxide and soot can be produced.



## 11.) Toxicological information

### Experience in practice

Exposure to component solvents vapours concentration in excess of the stated workplace exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Solvents may cause symptoms like described above by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Splashes in the eyes have an irritant effect.

If swallowed, stomach complaints and irritation of the digestive organs may result.

### Other information

There are no data available on the preparation itself.

The product was classified in toxicological terms on the basis of the results of the calculation procedure outlined within General Directive on Preparations (1999/45/EEC).

## 12.) Ecological information

### General information / ecology

There are no data available on the preparation itself. Do not empty into waters or drains

## 13.) Disposal considerations

### Product

Dispose of or incinerate in accordance with corresponding regulations.

Code of waste pursuant to European Council Directive on waste: 20 01 27 (Municipal wastes (Household waste and similar commercial, industrial and institutional wastes) including separately collected fractions - separately collected fractions (except 15 01) - paint, inks, adhesives and resins containing dangerous substances).

### Untampered packaging

Completely emptied containers can be used in the recycling chain with glass or tinplate.

Uncleaned packaging must be disposed of in the same manner as the medium.

## 14.) Transport information

### Land transport ADR/RID

Class	2
Hazard id. no.	23
Label	2.1
UN number	1950
Technical name	AEROSOLS

### Marine transport IMDG/GGVSee

Class	2.1
Packing group	-
UN number	1950
Proper shipping name	AEROSOLS
EmS	F-D,S-U
Label	2.1





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The instructions are based on today's information and knowledge. The safety data sheet describes products in relation to safety requirements. These instructions do not assure application technological properties of the product.