

## **1. Substance / Product identification:**

**Product identification:** Mareflex MF40 Pipe Repair Kit

**Product type:** MF40 Epoxy Putty

### **Contact details of the supplier of the safety data sheet:**

Mareflex GmbH  
Peutestrasse 53C / 108A  
20539 Hamburg  
Germany

Tel.: +49 40 210 918 890

Email: [mareflex@mareflex.com](mailto:mareflex@mareflex.com)

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## **2. Hazards identification:**

### **I. Classification according to Regulation (EC) No 1272/2008 (EU-GHS/CLP)**

#### **Hazard Statements:**

H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H412	Harmful to aquatic life with long lasting effects.

#### **Prevention Precautionary Statements:**

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P285	In case of inadequate ventilation wear respiratory protection.

#### **Response Precautionary Statements:**

P301+330+331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+361+353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363:	Wash contaminated clothing before reuse.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

#### **Storage Precautionary Statements:**

P405	Store locked up.
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#### **Disposal Precautionary Statements:**

P501	Dispose of contents/container in accordance with local or international regulations.
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**Label Elements**
**Labeling according to the Regulation (EC) No 1272/2008 (CLP)**
**Pictogram**

**3. Composition/Information on Ingredients**

Chemical name	CAS no.	EINECS no.	Weight (%)
Silicon dioxide	7631-86-9	231-545-4	40
Calcium carbonate	1317-65-3	/	29
Epoxy resin	25068-38-6	/	15
Diethylenetriamine	111-40-0	203-865-4	8
Methyl acrylate	86-33-3	202-500-6	5
Pyromellitic dianhydride	89-32-7	201-898-9	3

**4. First Aid Measures**
**General information**

If some of the symptoms are observed, get medical advice. Never give anything by mouth to an unconscious person or a person with cramps. In case of allergic symptoms, especially in the breathing area, seek medical attention immediately.

**Inhalation**

Remove affected person from contaminated area and keep at rest in a position comfortable for breathing. If breathing is irregular provide oxygen. If breathing has stopped provide artificial respiration. Seek medical attention.

**Eye contact**

Flush the eyes continuously with running water for several minutes. Do not rub eyes. Keep the eyelids open. If symptoms develop or persist seek medical attention immediately.

**Skin contact**

Remove all contaminated clothing immediately. Wash affected skin thoroughly with soap and water. Do not use solvents or thinners. In case of accidental skin contact avoid concurrent exposure to the sun or other sources of UV light, which may increase the sensitivity of skin.

**Ingestion**

Do not induce vomiting. Obtain medical attention. If vomiting should occur spontaneously, keep airway clear: keep head above hips to prevent aspiration. For advice, contact a Poisons Information Centre or a doctor (at once).

First Aid Facilities: Eyewash and normal washroom facilities.

Advice to Doctor: Treat symptomatically.

Other information: Pay attention to self-protection.

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**5. Fire-fighting Measures****Flammable properties**

Combustible if exposed to fire.

**Special Remarks on Fire Hazards**

This product may decompose upon fire and produce irritation fume. Silicon dioxide, calcium oxides, carbon oxides, nitrogen oxides (NOx), hydrogen chloride and hydrocarbons may be released at elevated temperatures or in a fire.

**Extinguishing Media**

Use water spray, dry chemical, carbon dioxide, or chemical foam. Use water spray to cool down the container during fire. Move containers to empty department if possible. If the container colour is changed or some sound is produced from container, evacuate immediately. Use water to dilute released material into a incombustible mixture.

**Unsuitable extinguishing media**

Not be used for safety reasons: water jet.

**Special Fire Fighting Procedures**

Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing for fires in areas where chemicals are used or stored.

**Remark**

Stop the fire spreading. Call the fire brigade immediately. Evacuate non-essential personnel. Fight fire from safe location.

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**6. Accidental Release Measures****Personal precautions and emergency procedures**

Keep unprotected people away. Remove all sources of ignition. Provide enough ventilation. Do not breath dust or vapour. Wear protective equipment and use protective gloves. Respiratory protection is not needed during normal use. If respiratory protection is needed, air supply mask or respirator with canister for organic vapours/isocyanates is recommended.

**Environmental precautions**

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Advise the environmental authorities if substance has entered a watercourse or sewer.

**Methods for cleaning up**

Collect material avoiding dust generation – then transfer the material in to suitable labelled containers for subsequent recycling or disposal.

**Regulatory Requirements**

Follow applicable national and local laws and regulations.

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## 7. Handling and storage



### Precautions for Safe Handling

Ensure good ventilation or exhaustion at the workplace. Use appropriate personal protective clothing and equipment to prevent inhalation, skin and eye exposure. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash thoroughly after handling and before eating, drinking and smoking. Void breathing dust/ fume/ gas/ mist/ vapours/ spray. Do not get in eyes or on skin or clothing. Do not ingest. Keep container tightly closed when not in use. Do not handle until all safety precautions have been read and understood.

### Conditions for safe Storage

Store in original, labelled and tightly closed container in a cool, dry and well-ventilated place. Keep away from oxidising agents, from strongly alkaline and strongly acid materials. Do not store near fire or overheated place. Do not store near food or feed. Ensure that storage conditions comply with applicable national and local laws and regulations.

## 8. Exposure Controls / Personal Protection

### Exposure limits

Substance	ACGIH TLV	OSHA PEL
Silicon dioxide (CAS No. 7631-86-9)	10 mg/m <sup>3</sup> TWA	6 mg/m <sup>3</sup> TWA
Diethylenetriamine (CAS No. 111-40-0)	1 ppm TWA	/

### Engineering Controls

Use local exhaust ventilation.

### Eye protection

Use safety glasses with side shields designed to protect against splash of liquids.

### Skin protection

For gloves there are no materials or combinations of materials available who give an unlimited protection against chemicals or combination of chemicals. For prolonged or repeated handling nitrile rubber gloves with textile under gloves are required.

### Body protection

Suitable protective workwear.

### Respiratory protection

Respiratory protection necessary at: exceeding exposure limit values Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be exposed to any process in which this product is used. Examination of lung function should be carried out on a regular basis on persons spraying this product.

### General health and safety measures

When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Wash hands before breaks and after work. Immediately remove any contaminated clothing, shoes or stockings.

## 9. Physical and Chemical Properties

General Information	
<i>Odor</i>	Slightly irritating
<i>Colour</i>	Green appearance with white inside
<i>Appearance</i>	Putty stick
<i>Viscosity</i>	Not available
<i>Melting point / Melting range</i>	Not available
<i>Decompositions temperature</i>	Not available
<i>Boiling point</i>	Not available
<i>Flash Point</i>	Not available
<i>Vapour pressure</i>	Not available
<i>Relative Density</i>	Not available
<i>Flammability</i>	Combustible
<i>Solubility in Water</i>	Insoluble

## 10. Stability and Reactivity

### Chemical stability

Stable under recommended storage and handling conditions

### Conditions to avoid

Open flame or excessive heat.

### Incompatibility (materials to avoid)

strong oxides, strong acid.

### Hazardous decomposition products

May form toxic materials upon combustion. Silicon dioxide, calcium oxides, carbon oxides, nitrogen oxides (NO<sub>x</sub>), hydrogen chloride and various hydrocarbons.

### Hazardous polymerization

Polymerization will occur at room temperature if exposed.

## 11. Toxicological Information

### Acute toxicity

EPOXY RESIN (CAS: 25068-38-6):

LD50=11400 mg/kg (Oral, Rat); LD50> 1200 mg/kg (Dermal, Rat).

Diethylenetriamine (CAS No 111-40-0):

LD50 = 1.080 mg/kg(Oral, Rat) Remarks: Behavioral: Convulsions or effect on seizure threshold.

LD50 = 1.090 mg/kg(Dermal, Rabbit).

### Inhalation

May cause sensitisation by inhalation. May cause asthmatic symptoms in hypersensitive persons.

### Eye contact

Causes serious eye damage. The symptoms may include redness, itching and swelling.

### Skin contact

May be irritating to skin. May produce an allergic reaction.

**Ingestion**

Ingestion may cause irritation. Harmful if swallowed.

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**12. Ecological Information**

**Toxicity**

Harmful to aquatic life with long lasting effects.

**Mobility**

Insoluble in water

**Environmental precautions**

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

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**13. Disposal Considerations**

**Waste disposal**

Disposal should be in accordance with local and National regulations via a licensed waste contractor.

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**14. Transport Information**

**Road Transportation (ADR/RID)**

No dangerous good in sense of these transport regulations.

**Air Transportation (IATA /ICAO)**

No dangerous good in sense of these transport regulations.

**Marine Transportation (IMO/IMDG)**

No dangerous good in sense of these transport regulations.

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**15. Regulatory Information**

This safety data sheet has been prepared according to EC Regulation No. 453/2010. The product has been classified in accordance with EC Regulations, No. 1272/2008/EC, No. 1999/45/EC and No. 67/548/EEC.

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**16. Other Information**

**Abbreviations:**

pH - Relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline

OSHA- Occupational Safety and Health Administration

IARC- International Agency for Research on Cancer

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds

ADR -Agreement on Dangerous Goods by Road

RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail

ICAO –International Civil Aviation Organization

IATA –International Air Transport Association

**MATERIAL SAFETY DATA SHEET**  
**MAREFLEX MF40 EPOXY PUTTY**

**Date of issue:** 01.02.2024  
**Version:** V.3.1

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**Remarks:**

*The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.*

**MATERIAL SAFETY DATA SHEET**  
**MAREFLEX MF 40 WATER ACTIVATED BANDAGE**

**Date of issue:** 01.02.2024  
**Version:** V.3.1

**1. Substance / Product identification:**

**Product identification:** Mareflex MF40 Pipe Repair Kit.

**Product type:** Water activated bandage.

**Recommended use:** Used for emergency repairing leaking pipes.

**Contact details of the supplier of the safety data sheet:**

Mareflex GmbH  
Peutestrasse 53C / 108A  
20539 Hamburg  
Germany

Tel.: +49 40 210 918 890  
Email: mareflex@mareflex.com

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**2. Hazards identification**

**I. Classification according to Regulation (EC) No 1272/2008 (EU-GHS/CLP)**

**Hazard Statements:**

H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Prevention Precautionary Statements:**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 Wash thoroughly after handling.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Label Elements**

**Labeling according to the Regulation (EC) No 1272/2008 (CLP)**

**Pictogram**





### 3. Composition/Information on ingredients

Chemical name	CAS no.	Wight (%)
Polyurethane resin which contains the Isocyanates	25686-28-6	45 – 53%
Fiberglass	65997-17-3	47 – 55%

### 4. First Aid Measures

#### General information

If some of the symptoms are observed, get medical advice. Never give anything by mouth to an unconscious person or a person with cramps. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately. If affected person is unconscious place him in recovery position and seek medical advice.

#### Inhalation

Move affected person to fresh air. Keep at rest until recovered. Work in a well ventilated place. If breathing is irregular administer oxygen. If breathing has stopped administer artificial respiration. Seek medical attention.

#### Eye contact

Flush the eyes continuously with running water for several minutes. Do not rub eyes. Keep the eyelids open. Get medical attention immediately.

#### Skin contact

Wash skin thoroughly with soap and water or use recognised skin cleanser. In case of accidental skin contact avoid concurrent exposure to the sun or other sources of UV light, which may increase the sensitivity of skin. Wash contaminated clothing before reuse or discard. If symptoms develop seek medical attention.

#### Ingestion

If affected person is conscious wash out mouth with plenty of water . Do not induce vomiting. If symptoms persist seek medical attention.

#### Note to physician

Treat symptomatically and supportively.

### 5. Firefighting Measures

#### Flammable properties

Combustible.

#### Extinguishing Media

Carbon dioxide, water spray, dry chemical or foam.

#### Special Fire Fighting Procedures

Fire fighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored. Fight fire from safe location.

#### Special hazards

Product will burn if exposed to fire and produce dense black smoke. Exposure to decomposition products may cause a health hazard.

## 6. Accidental Release Measures

### Emergency procedures

Remove all sources of ignition. Increase ventilation. Do not breathe gas/dust/vapour/spray. Wear protective equipment, protective gloves and respiratory protection to minimise exposure. Remove all sources of ignition. Increase ventilation. Do not breathe gas/dust/vapour/spray. Wear protective equipment, protective gloves and respiratory protection to minimise exposure. Do not allow undiluted product or large quantities reached ground water, water bodies or sewage system. Advise the environmental authorities if substance has entered a watercourse or sewer.

### Regulatory Requirements

Follow applicable international or local regulations.

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## 7. Handling and storage



### Handling

Avoid contact with eyes. Avoid contact with skin and clothing. Avoid breathing vapours or fumes. Take appropriate precautions against inhalation of dust particles. Ensure good ventilation or exhaustion at the workplace. When using do not eat, drink, smoke or sniff. Use protective glasses and disposable gloves to avoid personal contact. Wash your hands thoroughly after handling.

### Storage

Store in original, labelled and tightly closed container in a cool and well-ventilated place. Keep away from sources of ignition, oxidising agents, from strongly alkaline and strongly acid materials. Do not store near fire or overheated place. Do not store near food or feed.

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## 8. Exposure Controls / Personal Protection



### Eye and face protection

Safety glasses with side shields designed to protect against splash of liquids or chemical goggles should be worn.

### Body protection

Suitable protective workwear is recommended.

### Hand protection

Wear disposable gloves of impervious material. Do not wear gloves near rotary machines and tools. Check leak tightness prior to use. Wear cotton under mitten if possible. Use gloves only once. Take recovery periods for skin regeneration.

**MATERIAL SAFETY DATA SHEET**  
**MAREFLEX MF 40 WATER ACTIVATED BANDAGE****Date of issue:** 01.02.2024  
**Version:** V.3.1**Respiratory protection**

Respiratory protection necessary at: exceeding exposure limit values. Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be exposed to any process in which this product is used. Examination of lung function should be carried out on a regular basis on persons spraying this product.

**General health and safety measures**

When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Wash hands before breaks and after work. Immediately remove any contaminated clothing, shoes or stockings.

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**9. Physical and Chemical Properties**

<b>General Information</b>	
<i>Odor</i>	Weak odor
<i>Colour</i>	White
<i>Appearance</i>	Knitted fabric coated with sticky resin
<i>Viscosity</i>	Not available
<i>Melting point / Melting range</i>	Not available
<i>Decompositions temperature</i>	Not available
<i>Boiling point</i>	Not available
<i>Flash Point</i>	>200°C
<i>Vapour pressure</i>	Not available
<i>Relative Density</i>	Not available
<i>Flammability</i>	Not flammable
<i>Solubility in Water</i>	React with water

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**10. Stability and Reactivity****Reactivity**

The product reacts with water.

**Conditions to avoid**

Avoid moisture or water before use. This will cause unwanted hardening.

**Incompatibility**

Avoid contact with amines and alcohols or strong oxidizing agents.

**Hazardous Decomposition Products**

Under fire conditions this product may emit toxic or irritating fumes.

**Hazardous reactions**

Polymerisation may occur during heating of the product for long period.

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**11. Toxicological Information****Toxicology information**

No data available for this material.

**Inhalation**

May cause sensitisation by inhalation. May cause asthmatic symptoms in hypersensitive persons.

**MATERIAL SAFETY DATA SHEET**  
**MAREFLEX MF 40 WATER ACTIVATED BANDAGE**

**Date of issue:** 01.02.2024  
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**Eye contact**

May cause irritation to eyes. May produce an allergic reaction, redness, itching or tearing.

**Skin contact**

Harmful with contact with skin.. May produce an allergic skin reaction.

**Ingestion**

May cause irritation to the mouth, throat and stomach with symptoms of nausea, abdominal discomfort, vomiting and diarrhoea.

**Sensitisation**

May develop skin sensitisation from prolonged and/or repeated contact.

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**12. Ecological Information**

**Ecotoxicity**

There are no data available for this material.

**Persistence and Degradability**

No data available.

**Mobility**

No data available.

**Bioaccumulative potential**

No data available.

**Environmental precautions**

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

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**13. Disposal Considerations**

**Waste disposal**

Disposal should be in accordance with local and National regulations via a licensed waste contractor.

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**14. Transport Information**

**Road Transportation (ADR/RID)**

No dangerous good in sense of these transport regulations.

**Air Transportation (IATA /ICAO)**

No dangerous good in sense of these transport regulations.

**Marine Transportation (IMO/IMDG)**

No dangerous good in sense of these transport regulations.

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**15. Regulatory Information**

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

EU legislation.

**Other regulations (EU)**

**Information according to 2004/42/EC about limitation of emissions of volatile organic compounds**

**(VOC-guideline).**

Directive 2004/42/EC is not applicable.

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## **16. Other Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.