

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 03/14/2016

Version: 11

Reviewed on 12/14/2015


### 1 Identification

- **Product identifier**
- **Trade name:** Ena HFO/-Flow/Stain Flow/Glass connector
- **Article number:**  
EH2.../EHF.../EHG.../EHL.../EHO.../EHUD1-EHUD6/ET.../EHT.../ETST.../EHC.../EHD.../EHB...  
EH2.../EHF.../
- **Application of the substance / the mixture** Dental filling material
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Micerium spa., Via G. Marconi, 83 - 16036 Avegno (GE), Italy, Tel.: +39-0185-7887870, Fax: +39-0185-7887970
- **Information department:** Dr. Eugenio Miceli
- **Emergency telephone number:**  
Ospedale San Martino Centro Antiveneni (Genoa, Italy) Tel.: +39-010-35-2808 (disp. h. 24/24)

### 2 Hazard(s) identification

- **Classification of the substance or mixture**  
Skin Sens. 1 H317 May cause an allergic skin reaction.

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  - **Label elements**
  - **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
- 

GHS07
- **Signal word** Warning
  - **Hazard-determining components of labeling:**  
tetramethylene dimethacrylate
  - **Hazard statements**  
May cause an allergic skin reaction.
  - **Precautionary statements**  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Wear protective gloves.  
Contaminated work clothing must not be allowed out of the workplace.  
Specific treatment (see on this label).  
Wash contaminated clothing before reuse.  
If skin irritation or rash occurs: Get medical advice/attention.  
IF ON SKIN: Wash with plenty of water.  
Dispose of contents/container in accordance with local/regional/national/international regulations.
  - **Classification system**
  - **NFPA ratings (scale 0-4)**  
Health = 0  
Fire = 1  
Reactivity = 0
  - **Other hazards**
  - **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.

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## 3 Composition/information on ingredients

- **Chemical characterization:** *Mixtures*

- **Description:**

*1,4-Butandiol dimethacrylate*

*Urethane dimethacrylate*

*Bis-GMA*

- **Dangerous components:**

2082-81-7	tetramethylene dimethacrylate	2,5-10%
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- **Additional information** *For the wording of the listed risk phrases refer to section 16.*

## 4 First-aid measures

- **Description of first aid measures**

- **General information** *No special measures required.*

- **After inhalation** *Supply fresh air; consult doctor in case of complaints.*

- **After skin contact**

*If skin irritation continues, consult a doctor.*

*Immediately wash with water and soap and rinse thoroughly.*

- **After eye contact** *Rinse opened eye for several minutes under running water. Then consult a doctor.*

- **After swallowing** *Do not induce vomiting; immediately call for medical help.*

- **Information for doctor**

- **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*

- **Indication of any immediate medical attention and special treatment needed**

*No further relevant information available.*

## 5 Fire-fighting measures

- **Extinguishing media**

- **Suitable extinguishing agents**

*Foam*

*Fire-extinguishing powder*

*Water haze*

*Carbon dioxide*

- **Special hazards arising from the substance or mixture** *No further relevant information available.*

- **Advice for firefighters**

- **Protective equipment:** *Wear self-contained respiratory protective device.*

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** *Not required.*

- **Environmental precautions:** *Do not allow to enter sewers/ surface or ground water.*

- **Methods and material for containment and cleaning up:**

*Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).*

- **Reference to other sections**

*No dangerous substances are released.*

*See Section 7 for information on safe handling*

*See Section 8 for information on personal protection equipment.*

*See Section 13 for disposal information.*

## 7 Handling and storage

- **Handling**

- **Precautions for safe handling** *Keep receptacles tightly sealed.*

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- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**  
Close container immediately after use and protect product from light incidence.  
Storage between 10 °C and 25 °C.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

### \* 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and feed.  
Avoid contact with the eyes and skin.  
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:** Protective gloves and protective skin cream.
- **Material of gloves** Natural rubber, NR
- **Penetration time of glove material**  
0,1 - 0,2 mm  
Penetration time: 5 min.
- **Eye protection:** Goggles recommended during refilling.

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

<b>Form:</b>	Viscous
<b>Color:</b>	Different according to coloring
<b>Odor:</b>	Weak, characteristic
<b>Odor threshold:</b>	Not determined.
- **pH-value:** Not determined.
- **Change in condition**

<b>Melting point/Melting range:</b>	undetermined
<b>Boiling point/Boiling range:</b>	undetermined
- **Flash point:** 101 °C (214 °F)
- **Flammability (solid, gaseous)** Not applicable.
- **Ignition temperature:** > 370 °C (> 698 °F)
- **Decomposition temperature:** Not determined.

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· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not determined.
· <b>Density:</b>	Not determined
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>dynamic:</b>	Not determined.
<b>kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0,0 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
  - Photoreactive
  - Danger of polymerization
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:**
  - In the presence of radical formers (e. g. peroxides), deoxidizing substances, and/or heavy metal ions, polymerization with heat release is possible.
- **Hazardous decomposition products:** No dangerous decomposition products known

### 11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity:**
  - **Primary irritant effect:**
    - **on the skin:** No irritant effect.
    - **on the eye:** No irritating effect.
  - **Sensitization:** No sensitizing effects known.
  - **Additional toxicological information:**
  - **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
- |           |                                      |   |
|-----------|--------------------------------------|---|
| 7631-86-9 | silicon dioxide, chemically prepared | 3 |
|-----------|--------------------------------------|---|
- **NTP (National Toxicology Program)**
  - None of the ingredients is listed.

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· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (Self-assessment): hazardous for water.  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Must be specially treated adhering to official regulations.  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:**  
Packagings that cannot be cleansed are to be disposed of in the same manner as the product.
- **Recommended cleansing agent:** Alcohol

### 14 Transport information

- **UN-Number**
- **DOT, ADR, ADN, IMDG, IATA**                      Void
- **UN proper shipping name**
- **DOT, ADR, ADN, IMDG, IATA**                      Void
- **Transport hazard class(es)**
- **DOT, ADR, ADN, IMDG, IATA**
- **Class**    Void
- **Packing group**
- **DOT, ADR, IMDG, IATA**                              Void
- **Environmental hazards:**
- **Marine pollutant:**                                      No
- **Special precautions for user**                      Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**                      Not applicable.

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· **UN "Model Regulation":** Void

## 15 Regulatory information

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

· **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

· **SARA Section 313 (specific toxic chemical listings)**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

· **Prop 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

· **Carcinogenity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard-determining components of labeling:**

tetramethylene dimethacrylate

· **Hazard statements**

May cause an allergic skin reaction.

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves.

Contaminated work clothing must not be allowed out of the workplace.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water.

Dispose of contents/container in accordance with local/regional/national/international regulations.

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· **National regulations**

· **Technical instructions (air):**

Class	Share in %
III	2,5-10

· **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### \* 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Department issuing SDS:** Micerium S.p.a.

· **Contact:** Dr. Eugenio Miceli

· **Date of preparation / last revision** 03/14/2016 / 10

· **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organisation*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety & Health*

*TLV: Threshold Limit Value*

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

*Skin Sens. 1: Sensitisation - Skin, Hazard Category 1*

· **\* Data compared to the previous version altered.**

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