

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.03.2016


Version: 12

Revision: 08.09.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Ena Tender Stain
- **Article number:** ETS..._ETSCA_, ETSR_ETST_, ETSTX
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** see point 3)
- **1.3 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
- **Further information obtainable from:** Dr. Eugenio Miceli
- **1.4 Emergency telephone number:**
Poison Control Center San Martino Hospital (Genoa, Italy) Tel.: +39-010-352808 (available 24 h)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Flam. Liq. 2 H225 Highly flammable liquid and vapour.
Skin Irrit. 2 H315 Causes skin irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**

 GHS02 GHS07
- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
methyl methacrylate
- **Hazard statements**
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
- **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P321 Specific treatment (see on this label).
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.03.2016

Version: 12

Revision: 08.09.2015

Trade name: Ena Tender Stain

(Contd. of page 1)

- Labelling of packages where the contents do not exceed 125 ml
- Hazard pictograms



GHS02 GHS07

- Signal word *Danger*
- Hazard-determining components of labelling:
methyl methacrylate
- Hazard statements
H317 May cause an allergic skin reaction.
- Precautionary statements
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P321 Specific treatment (see on this label).
P363 Wash contaminated clothing before reuse.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures
- Description:
Light-curing paste on a methacrylate-base for the characterization of denture and acrylic teeth.
Liquid based on methacryl acid ester, containing an activator, used for the repair of crowns and bridges in dental medium.

· Dangerous components:

CAS: 80-62-6	methyl methacrylate	25-50%
EINECS: 201-297-1	⚠ Flam. Liq. 2, H225; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	

- Additional information For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- 4.1 Description of first aid measures
- After inhalation
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- After skin contact
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing
Rinse out mouth and then drink plenty of water.
Seek medical treatment.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.03.2016

Version: 12

Revision: 08.09.2015

Trade name: Ena Tender Stain

(Contd. of page 2)

- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
Carbon dioxide
Fire-extinguishing powder
Foam
Water haze
- **For safety reasons unsuitable extinguishing agents** Water with full jet.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Avoid eye and skin contact with the substance.
Wear protective equipment. Keep unprotected persons away.
Keep away from ignition sources
- **6.2 Environmental precautions:**
Prevent seepage into sewage system, workpits and cellars.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **6.4 Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
- **7.2 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:** Store in cool, dry conditions in well sealed receptacles.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

(Contd. on page 4)

GB

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.03.2016

Version: 12

Revision: 08.09.2015

Trade name: Ena Tender Stain

(Contd. of page 3)

· 8.1 Control parameters**· Ingredients with limit values that require monitoring at the workplace:****80-62-6 methyl methacrylate**

WEL	Short-term value: 416 mg/m ³ , 100 ppm
	Long-term value: 208 mg/m ³ , 50 ppm

· **Additional information:** The lists valid during the making were used as basis.

· 8.2 Exposure controls**· Personal protective equipment**

· **General protective and hygienic measures** Immediately remove all soiled and contaminated clothing

· **Respiratory protection:** Not necessary if room is well-ventilated.

· **Protection of hands:** Protective gloves.

· **Material of gloves** Butyl rubber, BR

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses

· Body protection:

Protective work clothing.

(Only when handling large quantities)

* **SECTION 9: Physical and chemical properties**

· 9.1 Information on basic physical and chemical properties**· General Information****· Appearance:**

Form:	Pasty
Colour:	According to product specification
· Odour:	Ester-like
· Odour threshold:	Not determined.

· **pH-value:** Not determined.

· Change in condition

Melting point/Melting range:	undetermined
Boiling point/Boiling range:	100 °C

· **Flash point:** 10 °C

· **Flammability (solid, gaseous)** Not applicable.

· **Ignition temperature:** 430 °C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Explosion limits:

Lower:	2,1 Vol %
Upper:	12,5 Vol %

· **Vapour pressure at 20 °C:** 47 hPa

· **Density at 20 °C:** 1 g/cm³

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.03.2016

Version: 12

Revision: 08.09.2015

Trade name: *Ena Tender Stain*

(Contd. of page 4)

- **Solubility in / Miscibility with Water:** (20 °C) 8,0 g/l
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - dynamic:** Not determined
 - kinematic:** Not determined
- **Solvent content:**
 - Organic solvents:** 0,0 %
- **9.2 Other information:** No further relevant information available.

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:**
 - methyl methacrylate LD-50 oral >5000 mg/kg rat (lit.)
 - LD-50 inhalativ 7093 ppm/4h rat (lit.)
- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation** Slightly irritating.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause respiratory irritation.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Type of test**

Effective concentration	Method	Assessment
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 - Toxicity to fish: LC-50: >79 mg/l OECD 203
 - (MMA) NOEC: 40 mg/l ISO 7346
 - Time: 96 h EEC84
 - Species:
 - Oncorhynchus mykiss*

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

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Version: 12

Revision: 08.09.2015

Trade name: Ena Tender Stain

(Contd. of page 5)

Toxicity to Micro- ECO: 100 mg/l starting inhibition
Organisms Species: of cell growth
(MMA) Pseudomonas putida

· **12.2 Persistence and degradability** No further relevant information available.

· **Behaviour in environmental systems:**

· **Components:**

methyl methacrylate Biodegradability: 30,7 %

Time: 28 d

Method: OECD 301 C

Valuation: difficult to decompose

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 2 (German Regulation) (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.

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

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

After prior treatment product has to be landfilled or incinerated adhering to the regulations pertaining to the disposal of especially hazardous waste.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

07 01 04*	other organic solvents, washing liquids and mother liquors
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· **Uncleaned packaging:**

· **Recommendation:**

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR, IMDG, IATA**

UN1247

· **14.2 UN proper shipping name**

· **ADR**

1247 METHYL METHACRYLATE MONOMER, STABILIZED mixture

· **IMDG**

METHYL METHACRYLATE MONOMER, STABILIZED mixture

· **IATA**

Methyl methacrylate monomer, stabilized mixture

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class**

3 (F1) Flammable liquids.

(Contd. on page 7)

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Trade name: *Ena Tender Stain*

(Contd. of page 6)

· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category · Stowage Code	Warning: Flammable liquids. 339 F-E,S-D B SW2 Clear of living quarters.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1247 METHYL METHACRYLATE MONOMER, STABILIZED MIXTURE, 3, II

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
 - **Directive 2012/18/EU**
 - **Named dangerous substances - ANNEX I** None of the ingredients is listed.
 - **Seveso category P5c** FLAMMABLE LIQUIDS
 - **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
 - **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
 - **National regulations**
 - **Technical instructions (air):**
- | Class | Share in % |
|-------|------------|
| NK | 25-50 |
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

(Contd. on page 8)

GB

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Trade name: *Ena Tender Stain*

(Contd. of page 7)

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

SECTION 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.

· **Relevant phrases**

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

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

· **Contact:** Dr. Eugenio Miceli

· **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

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

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

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

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

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