

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

Printing date 29.07.2016


Version: 11

Revision: 29.07.2016

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

- **1.1 Product identifier**
- **Trade name:** Temp Red Liquid
- **Article number:** TR100L_TRIL
- **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** Auxiliary for dental technology
- **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.
Eye Irrit. 2 H319 Causes serious eye 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
isobutyl methacrylate
ethyl methacrylate
tetramethylene dimethacrylate
- **Hazard statements**
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye 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.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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- **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
isobutyl methacrylate
ethyl methacrylate
tetramethylene dimethacrylate

- **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:** Liquid based on methacryl acid ester, containing an activator.

- **Dangerous components:**

CAS: 80-62-6 EINECS: 201-297-1	methyl methacrylate ⚠ Flam. Liq. 2, H225; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	50-75%
CAS: 97-86-9 EINECS: 202-613-0	isobutyl methacrylate ⚠ Flam. Liq. 3, H226; ⚠ Aquatic Acute 1, H400; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	10-25%
CAS: 97-63-2 EINECS: 202-597-5	ethyl methacrylate ⚠ Flam. Liq. 2, H225; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	10-25%
CAS: 3077-12-1 EINECS: 221-359-1	2,2'-[(4-methylphenyl)imino]bisethanol ⚠ Acute Tox. 4, H302	2.5-10%
CAS: 2082-81-7 EINECS: 218-218-1	tetramethylene dimethacrylate ⚠ Skin Sens. 1B, H317	< 2.5%

· **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**

· **General information** Immediately remove any clothing soiled by the product.

- **After inhalation**

Supply fresh air and to be sure call for a doctor.

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- In case of unconsciousness place patient stably in side position for transportation.*
- **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. If symptoms persist, consult a doctor.
- **After swallowing** *Rinse out mouth and then drink plenty of water.*
- **4.2 Most important symptoms and effects, both acute and delayed** *No further relevant information available.*
- **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**
*Water spray
Foam
Fire-extinguishing powder
Carbon dioxide*
- **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:** *No special measures required.*

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
*Wear protective equipment. Keep unprotected persons away.
Keep away from ignition sources*
- **6.2 Environmental precautions:** *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).
Do not flush with water or aqueous cleansing agents
Dispose contaminated material as waste according to item 13.*
- **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.
Protect against electrostatic charges.*
- **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:** *Not required.*
- **Further information about storage conditions:**
*Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.*

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· 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.· 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**

Keep away from foodstuffs, beverages and feed.

The usual precautionary measures are to be adhered to when handling chemicals.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

Not necessary if room is well-ventilated.

Use suitable respiratory protective device when high concentrations are present.

Short term filter device:

Filter A

· **Protection of hands:** Protective gloves.· **Material of gloves** Butyl rubber, BR· **Penetration time of glove material**

0,1 - 0,2 mm

Penetration time: 5 min.

· **Eye protection:** Safety glasses

SECTION 9: Physical and chemical properties

· 9.1 **Information on basic physical and chemical properties**· **General Information**· **Appearance:****Form:** Fluid**Colour:** Colourless· **Odour:** Characteristic· **Odour threshold:** Not determined.· **pH-value:** Not determined.· **Change in condition****Melting point/Melting range:** undetermined**Boiling point/Boiling range:** 101 °C· **Flash point:** 10 °C· **Flammability (solid, gaseous)** Not applicable.· **Ignition temperature:** 390 °C· **Decomposition temperature:** Not determined.· **Self-igniting:** Product is not selfigniting.

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· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	1.8 Vol %
Upper:	12.5 Vol %
· Vapour pressure at 20 °C:	47 hPa
· Density at 20 °C:	0.933 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix
· 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** Exothermic polymerization
- **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:** No dangerous decomposition products known

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.)
N,N-Bis(2-hydroxyethyl)-p-toluidine LD-50 oral 300 mg/kg rat
- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **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.
- **Carcinogenity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.

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- **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.
- **12.2 Persistence and degradability** No further relevant information available.
- **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 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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**
Must be specially treated adhering to official regulations.
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:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1993
- **14.2 UN proper shipping name**
- **ADR** 1993 FLAMMABLE LIQUID, N.O.S. (vapour pressure at 50 °C not more than 110 kPa) (METHYL METHACRYLATE MONOMER, STABILIZED)
- **IMDG, IATA** FLAMMABLE LIQUID, N.O.S.
- **14.3 Transport hazard class(es)**
- **ADR**
- **Class** 3 (F1) Flammable liquids.



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· Label	3
· IMDG	
	
· Class	3 Flammable liquids.
· IATA	
· Class	3.2
· 14.4 Packing group	
· ADR	II
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Danger code (Kemler):	33
· 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
· UN "Model Regulation":	UN 1993 FLAMMABLE LIQUID, N.O.S. (VAPOUR PRESSURE AT 50 °C NOT MORE THAN 110 KPA) (METHYL METHACRYLATE MONOMER, STABILIZED), 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

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **National regulations**

· **Technical instructions (air):**

Class	Share in %
III	< 2,5

· **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

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· **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.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

· **Department issuing SDS:** 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 – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1B: Skin sensitisation – Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

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