

## SAFETY DATA SHEET

### CHEMICAL SUBSTANCE / MIXTURE REGULATION (EC) No1907/2006 AS AMENDED BY REGULATION (EU) No 453/2010

#### SECTION 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

##### 1.1. Product identifiers

Product names	<b>i-RED (liquid)</b>
Chemical name	-
Identified uses	Self curing acrylic pattern resin

##### 1.2. Details of the supplier of the safety data sheet

Company	UAB "Medicinos linija"
Address	Karaliaučiaus str. 29 LT-78374 Šiauliai, Lithuania
Telephone	+370 41 553 553
Fax	+370 41 553 551
E-mail address	<a href="mailto:dental@i-dental.lt">dental@i-dental.lt</a>

##### 1.3. Emergency telephone number

Emergency telephone number (Available only during office hours)	+370 41 553 553
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#### SECTION 2: HAZARDS IDENTIFICATION

##### 2.1. Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

STOT SE 3  
Eye Irrit. 2  
Flam.Liq.2  
Skin Irrit.2  
Skin.Sens.1

##### 2.1.1. Label elements

###### Pictograms



**Signal word**      **Danger**

###### Hazard statements

H225: Highly flammable liquid and vapour  
H315: Causes skin irritation  
H317: May cause an allergic skin reaction  
H319: Causes serious eye irritation  
H335: May cause respiratory irritation

###### Precaution statements (prevention)

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P233: Keep container tightly closed  
P261: Avoid breathing vapours  
P280: Wear protective gloves/protective clothing/eye protection/face protection

###### Precaution statements (response)

P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
P304+340: IF INHALED: Remove person to fresh air and keep 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  
P321: Specific treatment (see Section 4)

#### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

##### 3.1. Information on ingredients:

Name	CAS No	EC No	Hazard statement	Content, %
Methyl methacrylate	80-62-6	201-297-1	H225, H315, H317, H335	> 75

## 3.2. Non-classified ingredients:

<b>Name</b>	<b>CAS No</b>	<b>EC No</b>	<b>Hazard statement</b>	<b>Content, %</b>
2-Hydroxyethyl methacrylate	868-77-9	212-782-2	H319, H315, H317	5-10
Ethyl methacrylate	97-63-2	202-597-5	H225, H319, H335, H315, H317	5-10
N,N-Dimethyl-p-toluidine	99-97-8	202-805-4	H331, H311, H301, H373, H412	1-5
Triethylene glycol dimethacrylate	109-16-0	203-652-6	H335, H319, H315, H317	1-5

**SECTION 4: FIRST AID MEASURES**4.1. **General advice**

In doubt, consult a physician. Show this safety data sheet to the doctor in attendance.

4.2. **If swallowed**

Never give anything by mouth to an unconscious person. Take casualty to the hospital.

If the person is conscious wash out mouth with water; spit out the solution residues. **Do not induce vomiting.**

Give 500ml of water to drink immediately. Refer for medical attention.

4.3. **In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. Refer for immediate medical attention.

4.4. **If inhaled**

Remove the casualty from the hazardous area and take him to the fresh air. If not breathing, give artificial respiration. Keep warm and at rest. Refer for immediate medical attention.

4.5. **In case of skin contact**

Take off contaminated clothing. Wash off with plenty of running water for 10 minutes or longer. If symptoms (irritation) occur obtain medical attention. Wash contaminated clothing before reuse.

4.6. **Most important symptoms and effects, both acute and delayed**

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.7. **Indication of any immediate medical attention and special treatment needed**

No data available.

**SECTION 5: FIRE FIGHTING MEASURES**5.1. **Extinguishing media**

Alcohol or polymer foam. Carbon dioxide. Dry chemical powder. Use water spray to cool containers.

5.2. **Unsuitable extinguishing media**

No data available.

5.3. **Advice for fire fighters**

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

5.4. **Special hazards arising from the substance or mixture**

In combustion emits toxic fumes. Forms explosive air-vapour mixture. Vapour may travel considerable distance to source of ignition and flash back.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. **Personal precautions, protective equipment and emergency procedures**

Eliminate sources of ignition. Ensure suitable personal protection (including respiratory protection) during removal or spillage. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Prevent entry into drains. Adsorb spillages onto sand, earth or any other suitable adsorbent material. DO NOT adsorb onto sawdust or other combustible materials. Transfer to a container for disposal or recovery. Spillages or uncontrolled discharges into watercourses must be alerted to appropriate regulatory body.

6.2. **Reference to other sections**

For disposal see section 13.

**SECTION 7: HANDLING AND STORAGE**7.1. **Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of high concentrations of vapours. Use only in well ventilated areas. Material is highly flammable; it must be kept from sources of ignition. The vapour is heavier than air, beware of pots and confined spaces. Take precautionary measures against static discharges. Keep away from food, drinks and animal feed. Do not eat, drink or smoke when using this product.

7.2. **Conditions for safe storage, including any incompatibilities**

Keep in cool, well ventilated place, separate from oxidising agents. Keep away from sources of ignition – No smoking. Prevent the build up of electrostatic charge in the immediate area. Ensure lighting and electrical equipment are not a source of ignition. Keep away from heat and direct sunlight. Keep the container closed to avoid evaporation of the product.

Storage temperature: Preferably not exceeding 28°C.

**7.3. Specific end uses**

Self curing acrylic pattern resin.

**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION****8.1. Exposure limit values**

Occupational Exposure limits

SUBSTANCE	CAS No.	TWA 8 hr (mg/m <sup>3</sup> )	15 min.STEL (mg/m <sup>3</sup> )
Methyl methacrylate	80-62-6	208	416
Ethyl methacrylate	97-63-2	250	-

**8.2. Exposure controls**

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. Ensure lighting and electrical equipment are not a source of ignition. Storage properly (p.7).

Preventive medical check-ups should be arranged.

**8.3. Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**8.4. Personal protective equipment****8.4.1. Eye/face protection**

Wear eye / face protection equipment. Safety glasses with side-shields, conforming to EN 166.

**8.4.2. Hand protection**

Wear suitable gloves. The most appropriate glove depends on consideration of a number of factors including the physical strength of the glove, the degree of manual dexterity required, the amount of permeation through the glove material and the duration of wear. There are a wide variety of elastomeric and laminate gloves available. Common elastomeric glove material include latex (natural rubber), neoprene (polyisoprene), nitrile rubber (ABS rubber), butyl rubber, polyvinyl alcohol (PVA), polyvinyl chloride (PVC) and fluoroelastomers. Laminate gloves are made from heat sealed sheets of PVA between layers of polyethylene. In permeation tests PVA/Polyethylene laminate and supported PVA gloves performed best (note that PVA can be rendered ineffective by contact with water if the laminate layer is breached). Butyl and nitrile rubber gloves offer short-term protection. Latex surgical gloves offer little protection. Gloves should be stored correctly and changed regularly, especially if excessive exposure has occurred.

**8.4.3. Skin protection**

Keep working clothes separately. Take off contaminated clothing immediately. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**8.4.4. Respiratory protection**

Wear suitable respiratory equipment if exposed to level above the occupational exposure limit is likely. A suitable mask with filter type A may be appropriate.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. General information**

Appearance

Clear, colourless liquid

Odour

Characteristic

**9.2. Important health, safety and environment information**

Flash point

12°C

Viscosity

Non viscous

**SECTION 10: STABILITY AND REACTIVITY****10.1. Stability**

Stable under recommended transport or storage conditions.

**10.2. Conditions to avoid**

Heat. Hot surfaces. Sources of ignition. Flames. Direct sunlight.

**10.3. Materials to avoid**

Strong oxidising agents. Strong acids.

**10.4. Hazard decomposition products**

In combustion emits toxic fumes.

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1. Possible dangerous to health effects**

According to literature:

Methyl methacrylate is in essential non-toxic, when absorbed into the body by any route. However for some few individuals it is a powerful skin sensitizer. Apart from this skin allergy, human cases of ill health caused by the product are of a low probability.

Long-term inhalation tests on rats and hamsters with exposure to concentrations from 100 to 400 ppm, did not show any chronic toxic effect. However concentrations on excess of 100 ppm volume may be irritating for some people. Handling of the product requires adequate ventilation to prevent accumulation of vapour in work areas.

**11.2. Inhalation**

There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**11.3. Skin corrosion/irritation**

There may be irritation and redness at the site of contact.

**11.4. Serious eye damage/eye irritation**

There may be irritation and redness. The eyes may water profusely.

**11.5. Respiratory or skin sensitization**

There may be irritation and redness at the site of contact.

**11.6. Ingestion**

There may be soreness and redness of the mouth and throat.

**11.7. Germ cell mutagenicity**

No data available.

**11.8. Carcinogenicity**

IARC: No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**11.9. Reproductive toxicity**

No data available.

**11.10. Specific target organ toxicity - single exposure**

The mixture may cause effects on the central nervous system.

**11.11. Specific target organ toxicity - repeated exposure**

No data available.

**11.12. Aspiration hazard**

No data available.

**11.13. Additional Information**

Immediate effects can be expected after short-term exposure.

None of these effects are likely to occur in humans, provided exposure is maintained at or below occupational exposure limit.

Methyl methacrylate

Acute oral rat: LD50 = 7872 mg/kg

Acute skin rabbit: LD50 = 9400 mg/kg

Acute inhalation rat: LD50 = 7093 ppm / 4 hours

2-hydroxyethyl methacrylate

Acute oral rat: LD50 = 5050 mg/kg

Ethyl methacrylate

Acute oral rat: LD50 = 14800 mg/kg

## SECTION 12: ECOLOGICAL INFORMATION

**12.1. Ecotoxicity**

No data available.

**12.2. Mobility in soil**

Readily absorbed into soil.

**12.3. Persistence and degradability**

Biodegradable.

**12.4. Toxicity**

No data available.

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

This product is not identified as a PBT substance.

## SECTION 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**

Disposal should be in accordance with local, state or national legislation. Incinerate under approved controlled conditions, using incinerators for the disposal of Methyl methacrylate. Decontaminate empty drums before recycling.

## SECTION 14: TRANSPORT INFORMATION

14.1. UN number: 1247

14.2. Proper shipping name: Methyl methacrylate monomer, stabilized

14.3. Hazard class: 3

14.4. Packing group: II

14.5. Labelling:



**SECTION 15: REGULATORY INFORMATION**

- 15.1. This safety datasheet complies with the requirements of Regulation (EC) No 1907/2006 as amended by Regulation (EU) No 453/2010.
- 15.2. Other Regulations: EINECS: Components of mixture are on the European Inventory of Existing Commercial Chemical Substances.
- 15.3. This safety data sheet information is not a professional risk assessment.
- 15.4. **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No data available.
- 15.5. **Chemical Safety Assessment**  
No data available.
- 15.6. **Health, safety and environmental information**  
No data available.

**SECTION 16: OTHER INFORMATION**

- 16.1. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.
- 16.2. UAB „Medicinos linija“ shall not be held liable for any damage resulting from handling or from contact with the above product.
- 16.3. The product should not be used for purposes other than specified in p.7.3 purposes.
- 16.4. User is responsible for the legal, regulatory compliance.
- 16.5. References to the changes that have been made in comparison with \_ version: whole document.
- 16.6. Abbreviations and acronyms used in the safety data sheet:
- 16.6.1. EC – European Commission
  - 16.6.2. GHS – Globally Harmonized System
  - 16.6.3. CLP – Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
  - 16.6.4. CAS No – Chemical Abstracts Service number
  - 16.6.5. EC No – EINECS and ELINCS Number (see also EINECS and ELINCS)
  - 16.6.6. PBT - Persistent, Bio accumulative and toxic substance
  - 16.6.7. VPvB – Very Persistent and Very Bio accumulative
  - 16.6.8. ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road
  - 16.6.9. UN – United Nations
  - 16.6.10. LC50 – Lethal Concentration to 50 % of a test population
  - 16.6.11. LD50 – Lethal Dose to 50% of a test population (Median Lethal Dose)
- 16.7. Key literature references and sources for data: <http://echa.europa.eu>.
- 16.8. List of relevant hazard statements, safety phrases and/or precautionary statements full text:  
**Signal word: Danger**  
H225: Highly flammable liquid and vapour  
H315: Causes skin irritation  
H317: May cause an allergic skin reaction  
H319: Causes serious eye irritation  
H335: May cause respiratory irritation  
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
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P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
P304+340: IF INHALED: Remove person to fresh air and keep 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  
P321: Specific treatment (see Section 4)
- 16.9. Training advice: How to properly handle chemical substances / mixtures employees must be trained in accordance with national requirements.