

**Section 1: IDENTIFICATION****Product details:****Trade name:** Dual Purpose Monomer**Chemical name:** Methyl Methacrylate**Application of the substance / the preparation:** Manufacture of dental prosthesis**Uses Advised Against:** Non-dental use**Manufacturer/Supplier:**Fricke Dental International, Inc.  
165 Roma Jean Parkway  
Streamwood, IL 60107 U.S.A.  
Telephone: (630) 540-1900**Emergency Information:**

(800)535-5053 (Infotrac)

**Section 2: HAZARDS IDENTIFICATION****Hazard classification:**

Highly Flammable Liquid (Category 2)

Acute toxicity, Oral, Category 4 (OSHA), Category 5 (UN Purple Book GHS)

Acute toxicity, Dermal, Category 4 (OSHA), Category 5 (UN Purple Book GHS)

Acute toxicity, Inhalation, Category 4 (OSHA), Category 5 (UN Purple Book GHS)

Eye irritation (Category 2B)

**Labeling****Pictogram/Symbol:****Signal word:**

Danger

**Hazard statement(s)**

|      |                                      |
|------|--------------------------------------|
| H225 | Highly flammable liquid and vapor.   |
| H303 | May be harmful if swallowed.         |
| H315 | May cause skin irritation.           |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye damage.           |
| H335 | May cause respiratory irritation.    |

**Precautionary statement(s)**

|           |   |
|-----------|---|
| P202      | Do not handle until all safety precautions have been read and understood. |
| P234      | Keep only in original container.  |
| P235+P410 | Keep cool. Protect from sunlight.   |
| P261      | Avoid breathing dust/fume/gas/mist/vapors/spray.                          |
| P264      | Wash thoroughly after handling.   |



## Section 2: HAZARDS IDENTIFICATION (Continued...)

|                |  |
|----------------|--|
| P270           | Do not eat, drink or smoke when using this product.  |
| P273           | Avoid release to the environment.  |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection.   |
| P301+P330      | IF SWALLOWED: Rinse mouth.   |
| P302+P352      | IF ON SKIN: Wash with plenty of soap and water.  |
| P304+P340      | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.                                 |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+P313      | If exposed or concerned: Get medical advice attention.   |
| P312           | Call a poison center or doctor if you feel unwell.   |
| P332+P313      | If skin irritation occurs: Get medical advice/attention.   |
| P337+P313      | If eye irritation persists: Get medical advice/attention.  |

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization:

Description:

| CAS #    | Name                           | Hazard Classification   | %       |
|----------|--------------------------------|---|---------|
| 80-62-6  | Methyl Methacrylate (MMA)      | H225 Highly flammable liquid and vapor.<br>H303 May be harmful if swallowed.<br>H315 May cause skin irritation.<br>H317 May cause an allergic skin reaction.<br>H319 Causes serious eye damage.<br>H335 May cause respiratory irritation. | >90%    |
| 97-90-5  | Ethylene Glycol Dimethacrylate | H225 Highly flammable liquid and vapor.<br>H303 May be harmful if swallowed.<br>H315 May cause skin irritation.<br>H317 May cause an allergic skin reaction.<br>H319 Causes serious eye damage.<br>H335 May cause respiratory irritation. | <10%    |
| 99-97-8  | Dimethyl p Toluidine           | H301 Toxic if swallowed.<br>H311 Toxic in contact with skin.<br>H331 Toxic if inhaled.<br>H402 Harmful to aquatic life.<br>H413 May cause long-lasting harmful effects to aquatic life.   | < 1%    |
| 123-31-9 | Hydroquinone                   | H302 Acute Toxicity (oral)<br>H318 Eye irritant – Serious eye damage, category 2<br>H317 Skin sensitization – category 1<br>H400 Hazardous to aquatic environment, acute, category 1  | < .001% |

## Section 4: FIRST-AID MEASURES

**Inhalation:** Remove to fresh air. Get medical attention if discomfort persists.**Skin:** Immediately wash with water and soap. Rinse thoroughly. If irritation occurs, consult a doctor.**Eye:** Flush with plenty of water for at least 15 minutes. Seek medical advice.

**Section 4: FIRST-AID MEASURES (Continued...)**

**Ingestion:** If swallowed, DO NOT induce vomiting, immediately give two glasses of water, or activated charcoal slurry. Seek immediate medical advice. Never give anything by mouth to an unconscious person.

**Section 5: FIRE-FIGHTING MEASURES****Suitable Extinguishing Media:**

CO<sub>2</sub>, extinguishing powder, dry chemical, water fog (by trained personnel) in flooding amounts.

**Approx. flammable limit by % volume in air:**

LEL: 2.1 %      UEL: 12.5%

**Advice for Firefighters:**

Wear respirator-MSHA/NIOSH approved or equivalent, self-contained breathing apparatus.

Use cold water spray to cool containers. Heat can cause containers to rupture explosively due to polymerization.

Vapors are heavier than air and may travel to the ignition source.

**Section 6: ACCIDENTAL RELEASE MEASURES****Small spill**

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

**Large spill**

Evacuate area and remove sources of ignition. Prevent skin contact and breathing vapor. Confine and remove with inert absorbent. Ventilate area. Prevent entry into sewers, basements or confined areas.

**Additional information**

See section 13 for disposal information.

See section 8 for information on personal protection equipment.

**Section 7: HANDLING AND STORAGE****Handling**

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as metals, acids, alkalis.

**Storage**

Keep in a well ventilated area. Store under 80°F (27°C). Keep container tightly closed and sealed until ready for use. Ground all equipment containing material. Avoid all possible sources of ignition (spark or flame).

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Engineering Controls:** Provide good local exhaust at processing equipment controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Eye/Face Protection:** Safety goggles or chemical splash goggles.

**Skin Protection:** Wear impervious gloves with consideration to the product and the preparation.

**Body Protection:** Protective work clothing.

**Respiratory Protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.



## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued...)

**Environmental Exposure:****Components with limit values that require monitoring at the workplace:****80-62-6 Methyl Methacrylate**

|        |  |
|--------|--|
| PEL () | 410 mg/m <sup>3</sup> , 100ppm   |
| REL () | 410 mg/m <sup>3</sup> , 100ppm   |
| TLV()  | Short-term value: 410 mg/m <sup>3</sup> , 100ppm<br>Long-term value: 205 mg/m <sup>3</sup> , 50ppm |

**123-31-9 Hydroquinone**

|        |  |
|--------|--|
| PEL () | 2 mg/m <sup>3</sup> TWA                  |
| REL () | 2 mg/m <sup>3</sup> Ceiling (15 Minutes) |
| TLV()  | 2 mg/m <sup>3</sup> TWA                  |

**97-90-5 Ethylene Glycol Dimethacrylate**

|        |                  |
|--------|------------------|
| PEL () |                  |
| REL () | None Established |
| TLV()  |                  |

**Additional Information:** The lists that were valid during the creation were used as a basis.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**General Information**

|                               |                   |
|-------------------------------|-------------------|
| Physical state and appearance | Liquid            |
| Color                         | Not available     |
| Odor                          | Acrid fruity odor |

**Change in Condition**

|                                   |  |
|-----------------------------------|--|
| Approx. boiling point             | 101°C @ 760mm Hg (213.8°F)               |
| Flash Point                       | 55°F (Open cup) (12.78°C)                |
| Approx. auto-ignition temperature | 790°F (421°C)                            |
| SADT                              | N/A – does not contain organic peroxides |

**Other**

|                                      |                                       |
|--------------------------------------|---------------------------------------|
| Vapor Density                        | 3.5 (Air = 1)                         |
| Solubility in water                  | 1.6g / 100g                           |
| Percent Volatile                     | > 95%                                 |
| Evaporation Rate                     | 3 (Butyl Acetate = 1)                 |
| Flammable limits in Air, % by Volume | Lower limit: 2.1<br>Upper limit: 12.5 |

## Section 10: STABILITY AND REACTIVITY

**Stability**

Stable. Stable at room temperature in closed containers under normal storage and handling conditions.

**Conditions to Avoid**

Heat and ignition sources. Contamination.

**Incompatibility**

Reducing and oxidizing agents. Material has strong solvent properties and can soften paint or rubber.

**Section 10: STABILITY AND REACTIVITY (Continued...)****Hazardous Decomposition**

Can yield CO, CO<sub>2</sub>, smoke

**Hazardous Polymerization**

May occur

**Conditions to Avoid for Hazardous Polymerization**

Excessive heat (temperatures above 40°C), contamination, peroxides, amides, and other oxidizing or reducing agents.

**Section 11: TOXICOLOGICAL INFORMATION****Routes of Entry**

Eye contact. Inhalation. Ingestion.

**Toxicity to Animals**

WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 7872 mg/kg [Rat]. Acute toxicity of the vapor (LC50): 5303.3 ppm 4 hours [Rat].

**Chronic Effects on Humans:**

The substance is toxic to lungs, mucous membranes.

**Other Toxic Effects on Humans:**

Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).

**Special Remarks on Toxicity to Animals:**

Not available.

**Special Remarks on Chronic Effects on Humans:**

Embryotoxic and/or foetotoxic in animal.

**Special Remarks on other Toxic Effects on Humans:**

Not available.

**Section 12: ECOLOGICAL INFORMATION****General Notes**

Avoid transfer into the environment.

**Section 13: DISPOSAL CONSIDERATIONS****General Notes**

Avoid transfer into the environment. Do not allow product to reach sewage system. Disposal must be completed according to official regulations.

**Section 14: TRANSPORT INFORMATION**

**UN Number:** 1247

**Proper Shipping Name:** Methyl Methacrylate Monomer, Inhibited

**Hazard Class:** 3

**Packing Group:** II

**Label Statement:** Flammable liquid

**Section 15: REGULATORY INFORMATION****Federal and State Regulations**

SARA Title III, Section 302 (TPQ): Hydroquinone - TPQ (lbs):1000

SARA Title III, Section 302 (RQ): Methyl Methacrylate - RQ (lbs): 1000; Hydroquinone - RQ (lbs): 500

SARA Title III, Section 311-312: Methyl Methacrylate, Hydroquinone

SARA Title III, Section 313: Methyl Methacrylate, Hydroquinone

TSCA Section 8(b): This product contains chemicals that are on the TSCA List

Massachusetts RTK: Methyl Methacrylate, Hydroquinone

New Jersey RTK: Methyl Methacrylate, Hydroquinone

Pennsylvania RTK: Methyl Methacrylate, Hydroquinone

NON-hazardous ingredients present at a concentration of 3% or more required to be listed by Pennsylvania: NONE

California RTK: Methyl Methacrylate, Hydroquinone

Substances known to the state of California to cause cancer: NONE

Substances known to the state of California to cause birth defects or other reproductive harm: NONE

Florida RTK: Methyl Methacrylate, Hydroquinone

Minnesota RTK: Methyl Methacrylate, Hydroquinone

**WHMIS (Canada)**

Class B-2 Flammable liquid

Class D-2B Material causing other toxic effects

**EINECS (Europe)**

Hazard Symbols

Xi – Irritant

F – Flammable

Risk Phrases

R11 – Highly Flammable

R36/37/38 – Irritating to eyes, respiratory system and skin

R43 – May cause sensitization by skin contact

Safety Phrases

S2 – Keep out of the reach of children

S24 – Avoid contact with skin

S37 –Wear suitable gloves

S46 – If swallowed, seek medical advice immediately and show this container or label

**HMIS (U.S.A.)**

Health Hazard: 2

Fire Hazard: 3

Reactivity: 2

Personal Protection: H

**Section 15: REGULATORY INFORMATION (Continued...)****National Fire Protection Association (U.S.A.)**

Health: 2  
Flammability: 3  
Reactivity: 2  
Specific Hazard:

**Protective Equipment**

Gloves  
Lab Coat  
Vapor respirator  
Be sure to use an approved/certified respirator or equivalent. Wear an appropriate respirator when ventilation is inadequate.  
Splash goggles

**Section 16: OTHER INFORMATION****References**

Not Available

**Other Special Considerations**

Not Available

|                                   |            |
|-----------------------------------|------------|
| <b>Last Update/Revision Date:</b> | 01/02/17   |
| <b>Supersedes/Replaces:</b>       | SDS.1029.4 |
| <b>Revised by:</b>                | R. Tekstar |

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fricke Companies be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fricke Companies has been advised of the possibility of such damages.*