

**MATERIAL SAFETY DATA SHEET****Methyl Methacrylate, Stabilized****Section 1 - Chemical Product and Company Identification**

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| MSDS Name: | Methyl Methacrylate, stabilized, 99% |
| Synonyms: | MMA ; Methyl 2-methylpropenoate |
| Company Identification: (INDIA) | Veritas House, 70 Mint Road, Fort, Mumbai - 400 001. INDIA |
| For information in the INDIA, call: | Tel: +91 - 22 - 2275 5555 / 6184 0000, Fax: +91 - 22 - 2275 5556 / 6184 0001 |

Section 2 - Composition, Information on Ingredients

| CAS# | Chemical Name: | % | EINECS# |
|---------|---------------------|-----|-----------|
| 80-62-6 | Methyl methacrylate | 99% | 201-297-1 |

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| Hazard Symbols: | XI F |
|  |  |
| Risk Phrases: | 11 37/38 43 |

Section 3 - Hazards Identification**EMERGENCY OVERVIEW**

Highly flammable. Irritating to respiratory system and skin. May cause sensitization by skin contact.

Potential Health Effects

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| Eye: | Causes eye irritation. Lachrymator (substance which increases the flow of tears). |
| Skin: | Causes skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May be absorbed through the skin. Causes redness and pain. |
| Ingestion: | May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. May cause effects similar to those for inhalation exposure. |
| Inhalation: | Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Causes respiratory tract irritation. May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. May cause asthmatic attacks due to allergic sensitization of the respiratory tract. May cause narcotic effects in high concentration. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. |
| Chronic: | Prolonged or repeated skin contact may cause dermatitis. May cause liver and kidney damage. May cause lung damage. |



Section 4 - First Aid Measures

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| Eyes: | Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid. |
| Skin: | Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. |
| Ingestion: | Do not induce vomiting. Get medical aid. Wash mouth out with water. |
| Inhalation: | Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. |
| Notes to Physician: | |

Section 5 - Fire Fighting Measures

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| General Information: | As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Containers may explode in the heat of a fire. |
| Extinguishing Media: | Use water spray to cool fire-exposed containers. Use water fog, dry chemical, carbon dioxide, or regular foam. |

Section 6 - Accidental Release Measures

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| General Information: | Use proper personal protective equipment as indicated in Section 8. |
| Spills/Leaks: | Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool. |

Section 7 - Handling and Storage

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| Handling: | Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Use only in a chemical fume hood. |
| Storage: | Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Refrigerator/flammables. |

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

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| CAS# 80-62-6: |
| United Kingdom, WEL - TWA: 50 ppm TWA; 208 mg/m ³ TWA United Kingdom, WEL - STEL: 100 ppm STEL; 416 mg/m ³ STEL |
| United States OSHA: 100 ppm TWA; 410 mg/m ³ TWA |
| Belgium - TWA: 100 ppm VLE; 416 mg/m ³ VLE |
| France - VME: 100 ppm VME; 410 mg/m ³ VME France - VLE: 200 ppm VLE; 820 mg/m ³ VLE |
| Germany: 50 ppm TWA; 210 mg/m ³ TWA |
| Malaysia: 100 ppm TWA; 410 mg/m ³ TWA |
| Netherlands: 50 ppm MAC; 100 mg/m ³ MAC |
| Russia: 10 mg/m ³ TWA (vapour) |
| Spain: 50 ppm VLA-ED; 208 mg/m ³ VLA-ED Spain: 100 ppm VLA-EC; 416 mg/m ³ VLA-EC |



| Personal Protective Equipment | |
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| Eyes: | Wear chemical splash goggles. |
| Skin: | Wear appropriate protective gloves to prevent skin exposure. |
| Clothing: | Wear a chemical apron. |
| Respirators: | Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |

Section 9 - Physical and Chemical Properties

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| Physical State: | Clear liquid |
| Color: | APHA: 10 max |
| Odor: | sharp odor |
| pH: | Not available |
| Vapor Pressure: | 28 mm Hg @ 20 deg C |
| Viscosity: | 0.6 mPas 20 deg C |
| Boiling Point: | 100 deg C @ 760.00mm Hg (212.00°F) |
| Freezing/Melting Point: | -48 deg C (-54.40°F) |
| Autoignition Temperature: | 430 deg C (806.00 deg F) |
| Flash Point: | (+) 8 deg C (46.40 deg F) |
| Explosion Limits: Lower: | 2.10 vol % |
| Explosion Limits: Upper: | 12.50 vol % |
| Decomposition Temperature: | Not available |
| Solubility in water: | 15 g/l (20°C) |
| Specific Gravity/Density: | 0.9360 g/cc |
| Molecular Formula: | H ₂ C=C(CH ₃)CO ₂ CH ₃ |
| Molecular Weight: | 100.12 |

Section 10 - Stability and Reactivity

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| Chemical Stability: | Stable under normal temperatures and pressures. |
| Conditions to Avoid: | High temperatures, incompatible materials, light, ignition sources. |
| Incompatibilities with Other Materials | Oxidizing agents, reducing agents, acids, bases, amines, halogens, peroxides, carbon. |
| Hazardous Decomposition Products | Carbon monoxide, carbon dioxide. |
| Hazardous Polymerization | May occur. |

Section 11 - Toxicological Information

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| RTECS#: | CAS# 80-62-6: OZ5075000 |
| LD50/LC50: | RTECS: CAS# 80-62-6: Draize test, rabbit, eye: 150 mg; Inhalation, mouse: LC50 = 18500 mg/m ³ /2H; Inhalation, rat: LC50 = 78000 mg/m ³ /4H; Oral, mouse: LD50 = 3625 mg/kg; Oral, rabbit: LD50 = 8700 mg/kg; Oral, rat: LD50 = 7872 mg/kg; Skin, rabbit: LD50 = >5 gm/kg; |



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| | Other: |
| Carcinogenicity: | Methyl methacrylate - IARC: Group 3 (not classifiable) |
| Other: | See actual entry in RTECS for complete information. |

Section 12 - Ecological Information

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| Ecotoxicity: | Not available |
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Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

| | IATA | IMO | RID/ADR |
|-----------------------|---|--|---|
| Shipping Name: | METHYL METHACRYLATE MONOMER, STABILIZED | METHYL METHACRYLATE, MONOMER, STABILIZED | METHYL METHACRYLATE MONOMER, STABILIZED |
| Hazard Class: | 3 | 3 | 3 |
| UN Number: | 1247 | 1247 | 1247 |
| Packing Group: | II | II | II |

USA RQ: CAS# 80-62-6: 1000 lb final RQ; 454 kg final RQ

Section 15 - Regulatory Information

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| European/International Regulations |
| European Labeling in Accordance with EC Directives |
| Hazard Symbols: Xi F |
| Risk Phrases: |
| ➤ R 11 Highly flammable. |
| ➤ R 37/38 Irritating to respiratory system and skin. |
| ➤ R 43 May cause sensitization by skin contact. |
| Safety Phrases: |
| ➤ S 24 Avoid contact with skin. |
| ➤ S 37 Wear suitable gloves. |
| ➤ S 46 If swallowed, seek medical advice immediately and show this container or label. |
| WGK (Water Danger/Protection) |
| ➤ CAS# 80-62-6: 1 |
| Canada |
| ➤ CAS# 80-62-6 is listed on Canada's DSL List |
| US Federal |
| ➤ TSCA |
| ➤ CAS# 80-62-6 is listed on the TSCA Inventory. |



Section 16 - Other Information

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| MSDS Creation Date: | July 22, 2015 |
| Revision #0 Date | |

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