

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name : SUMIPEX (PMMA Molding Resins)
Manufacturer : Singapore Methyl Methacrylate Pte. Ltd (SMP Plant)
Address : No 17, Sakra Road, Singapore 627886
Telephone Number : (65) 6867-6352
Fax Number : (65) 6867-6182

2. PRODUCT INFORMATION

Chemical Name : poly methyl methacrylate (PMMA)
Synonyms : poly(methyl 2-methylpropenoate)
Molecular Formula : $(C_5H_8O_2)_x$
CAS Number : 9011-14-7

3. PHYSICAL PROPERTIES

Appearance : Crystal-clear solid pellets
Odor : Odorless
Specific Gravity : 1.2 (H₂O = 1)
Melting Point : > 120 °C
Solubility in Water : Insoluble

4. FIRE & EXPLOSION HAZARDS DATA

Flash point : Not applicable
Flammable limits : Not applicable
Auto-ignition temperature : Not applicable

5. STABILITY AND REACTIVITY

Stability & Reactivity : Stable under normal temperatures and pressures.
Incompatibility : Strong oxidizing agents, strong bases, amines, alkalies.
Decomposition : Decomposed with heat. Hazardous, flammable gases/vapors produced are carbon monoxide, carbon dioxide and methyl-methacrylate monomer.
Hazardous Polymerization : Has not been reported.
Conditions to avoid : Incompatible materials, excess heat, strong oxidants.
Ignition temperature : > 400 °C

6. HAZARDS IDENTIFICATION

- Emergency overview : Crystal-clear solid pellets that present no immediate hazard under ordinary condition of use and storage
- Potential health effects : Inhalation - Unlikely to be hazardous unless heated. Monomer vapors from heated products may cause irritation, nausea, headache and dizziness
- Eye Contact - May cause irritation
- Skin Contact - Non-irritating. Practically non-toxic. Molten material (hot) may cause severe scalds
- Ingestion - May cause irritation of the digestive tract
- Chronic - No known effects
- Exposure controls / Engineering measures : Use local ventilation at places where the dust can be released into the workplace air. The dust may be combustible when exposed to heat, flame, or oxidizing agents.

7. TOXICOLOGICAL INFORMATION

- Chronic effects / carcinogenicity : No data available Not listed by IARC, NTP or OSHA
- Mutagenicity : No data available

8. PERSONAL PROTECTION

- Respiratory : None required for occasional handling if adequate ventilation is available. A dust respirator is recommended for prolonged handling or exposure.
- Hand Protection : When handling hot material, wear thermal resistant gloves.
- Eye Protection : Wear safety goggles or equivalent eye protection devices.
- Others : Wear appropriate protective clothing for preventing skin contact
- Work/Hygiene practices : Always keep protective equipment and workplace clean.

9. FIRST AID MEASURES

- Inhalation : Remove from exposure to fresh air immediately, and provide oxygen or give artificial respiration and call a physician if breathing is difficult.
- Skin contact : Get medical aid. Wash rapidly with plenty of water while removing contaminated clothing and shoes.
- Eye contact : Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
- Ingestion : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.

10. FIRE FIGHTING MEASURES

- Extinguishing media : Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam
- Special fire fighting procedures : Keep personnel removed from upwind of fire. Wear appropriate safety equipment for fire conditions, including self-contained breathing apparatus and other protective equipment or garments. Cool tank/container with water spray.

11. ACCIDENTAL RELEASE MEASURES

- Spills or Leaks : Vacuum or sweep material and place in a suitable disposal container. Keep walking surface free from spilled products to avoid a slipping hazard. Provide ventilation.

12. HANDLING AND STORAGE

- Precautions for storage & handling : Store in a cool and dry, well ventilated area, away from incompatible substances
- Wash thoroughly after handling. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Use with adequate ventilation. May form explosive dust-air mixture. Avoid ingestion and inhalation.

13. DISPOSAL CONSIDERATIONS

- Product disposal : May be buried in an authorized landfill site or be incinerated under approved controlled condition. Disposal should be in accordance with local, state and/or national legislation. The owner of the material is responsible for proper waste disposal.

14. TRANSPORT INFORMATION

- Regulations : Not regulated.

15. ECOLOGICAL INFORMATION

- Aquatic Toxicity : No information available

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