



550-290 70-1, HwaChi-Dong, Yosu-City, Chunranam-Do, Korea

Fax No : 82 - 61 - 680 - 6034  
Tel No : 82 - 61 - 680 - 1281

## Material Safety Data Sheet

PMMA(Poly Methyl Methacrylate)

CAS No: 9011 - 14 - 7

Serial No	MSDS - PMMA - 039
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Reviewed Item	
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### 1. Identification of Substance

- \*. Product Name : PMMA
- \*. Chemical Name : Poly Methyl Methacrylate
- \*. Chemical Family : Thermoplastic Acrylic Polymers
- \*. Manufacturer Address : 70-1, HwaChi-Dong, Yosu-City, Chunranam-Do, Korea LG MMA Corp. / PMMA Sec.  
☎ 82 - 61 - 680 - 1721

### 2. Composition

<u>Chemical Name</u>	<u>Unothers Name</u>	<u>CAS No</u>	<u>Contents(%)</u>
Poly Methyl Methacrylate	Acrylic Polymers	9011 - 14 - 7	min 99.8 %

### 3. Hazards Identification

- \*. NFPA  
Health =1          Fire=1          Reactivity=0
- \*. Emergency State : No Data
- \*. Health Hazard Data  
Eye : No toxic symptoms reported. Polymer particle may act as foreign body.  
Skin : No toxic symptoms reported. Molten material has the potential to cause thermal burns.  
Inhalation : No toxic symptoms reported. Pellets are not considered an inhalation hazard.  
Ingestion : No toxic symptoms reported. However, Low toxicity by this route is expected based on biological activity of high molecular weight polyester polymers.

### 4. Emergency and First Aid Measures

- \*. Emergency and First Aid Measures  
Eye(Contact) : Flush with plenty of water. Seek medical attention if symptoms persist.  
Skin(Contact) : If molten polymer contact skin, cool rapidly with cold water.  
Inhalation : Remove to fresh air.  
Ingestion : If significant quantity has been swallowed, give a glass of water and induce vomiting. Seek medical attention.

## 5. Fire and Explosion Hazard Data

- \*. Flash Point(method used) : >280 °C ( 536 F)
- \*. Flammable Limits : No Data
- \*. Extinguishing Media : Dry Chemical, CO<sub>2</sub>, FOAM or water spray
- \*. Special Fire Fighting Procedure  
Water and/or dry chemical should not be used on machinery. Self-contained breathing apparatus and personal protective equipment may be needed for large fires.
- \*. Unusual Fire and Explosion Hazards  
Fire procedure irritating gases and dense smokes  
The approaches used are
  - 1) Addition of compounds containing phosphorus and halogen
  - 2) Combination with polyvinyl chloride to form an alloy

## 6. Spill or Leak Measures

- \*. In the case of spillage, please immediately remove LG PMMA from the floor or aisle to avoid a slipping hazard
- \*. Waste disposal method  
Transfer to an approved disposal area in accordance with regulation on industrial waste disposal.

## 7. Handling and Storage

- \*. Handling  
Information for safe handling
  - . In Processing of LG PMMA, sufficient ventilation is necessary.
  - . Lifting of heavy bags can damage to your spine if not done correctly.
  - . Care Should be taken to avoid accidents when loading, unloading or stacking the product.
- \*. Storage
  - . Requirements to be met by storerooms and containers
  - . Refrain from using fire at a handling or storing place of LG PMMA.
  - . Keep LG PMMA away from sunlight, water, and moisture and store at an ambient temperature.

## 8. Exposure controls and personal protection

- \*. Ventilation  
Local Exhaust Recommended when appropriate to control employee exposure  
Mechanical May not be adequate as the sole means to control employee exposure
- \*. Respiratory Protection  
Approved respirators recommended when handling hot material
- \*. Protective Gloves  
Recommended during melt processing.
- \*. Eye Protection  
Safety glasses recommended.

## 9. Physical and chemical properties

- |  |                                    |
|--|------------------------------------|
| *. Appearance : Solid Pellet, Bead                     | *. Odor : Slight odor              |
| *. PH : Not applicable                                 | *. Solubility in water : Insoluble |
| *. Specific gravity : 1.15~1.19 ( H <sub>2</sub> O=1 ) | *. Melting Point : Min 132°C(270F) |
| *. Vapor Pressure :Not applicable                      | *. Decomposition : 280°C           |
| *. Vapor Density :Not applicable                       | *. Flash Point : No data           |
|  | *. Autoignition Temp : 393°C(739F) |

## 10. Stability and reactivity

- |   |  |
|---|--|
| *. Stability                                    | Stable   |
| *. Incompatibility<br>( Material to avoid )     | Strong Acids, base, oxide  |
| *. Hazard Polymerization                        | Will not occur   |
| *. Conditions to avoid                          | Do not heat above 280 °C<br>avoid prolonged exposure to temperatures above 250°C |
| *. Hazard Decomposition Product                 |  |
| Major : CO <sub>2</sub> , H <sub>2</sub> O , CO |  |
| Minor : esters, ketone, methacrylic acid        |  |

## 11. Toxicological information

- \*. Precautions to be taken in handling and storing. Store in cool dry place.
- \*. Toxic Substances Control Act(TSCA)  
All the components of this products are listed on the TSCA inventory.

**12. Ecological information**

\*. Ecological information : No data

**13. Disposal consideration**

\*. Recommendation : Must be specially treated under adherence to official regulations.

**14. Transport information**

\*. Land transport : No data

Not dangerous according to the above specifications

**15. Regulatory information**

\*. Regulatory information : No data

**16. Other information**

\*. The information submitted in this MSDS is based on our current knowledge and experience. All materials may present unknown health hazards and should be used with caution. Final responsibility lies in user's determination. Although the MSDS is described herein, we cannot guarantee that these are the only hazards which exist.

Make	Writer	C.H. Kim	Review	Tech & Res Team	H.J. Park	Admission	PMMA Product Manager	S.Y. Lee
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