

MARK V LAB

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name	Formula 1 ACRYLIC RESIN - POLY(EMA) BASED FMP-2, FMP-5, FMP-25, FMP-50 & FMP-100 FXP-2, FXP-5, FXP-25, FXP-50 & FXP-100
Product Description	Polymer based on Ethyl methacrylate. This data sheet covers the following grades: Formula-1 Mounting Powder
CAS No.	9003-42-3
Identified use(s)	Manufacture of Metallurgical Mounting Systems
Uses advised against	None known.
Manufacturer	Mark V Laboratory 18 Kripes Rd. East Granby, CT 06026 800-243-9776 markvlmet@markvlab.com
Emergency Phone No.	1-800-424-9300 (Transport Emergency) 1-877-886-2143 (Medical Emergency)

2. HAZARDS IDENTIFICATION

Hazard classification	Combustible dust
Label elements	
Signal word	Warning
Hazard statement(s)	May form combustible dust concentrations in air.
Other hazards	Low toxicity under normal conditions of handling and use.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical identity of the substance	Poly(Ethyl methacrylate)
CAS No.	9003-42-3

4. FIRST AID MEASURES

Description of first aid measures	
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Skin Contact	IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention.
Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Ingestion	Do not induce vomiting. Rinse mouth. Obtain medical attention if ill effects occur.

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Most important symptoms and effects, both acute and delayed

Not applicable.

Indication of any immediate medical attention and special treatment needed None necessary.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Water spray, foam, dry powder or CO₂.
 Unsuitable Extinguishing Media Do not use water jet.
 Special hazards arising from the substance or mixture Combustible but not readily ignited. By analogy with similar materials, the product may decompose if heated to temperatures above 392°F (200°C). Combustion or thermal decomposition will evolve toxic, irritant and flammable vapors.
 Special protective equipment and precautions for fire fighters A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up Caution - spillages may be slippery. Sweep up and shovel into waste drums or plastic bags. Wash the spillage area with water.

7. HANDLING AND STORAGE

HANDLING Product as supplied: Avoid contact with eyes. Avoid prolonged skin contact. Unlikely to represent a dust hazard under normal handling conditions.
Process Hazards The product may be suitable for a wide range of industrial applications and therefore it is impossible to make detailed recommendations regarding all process hazards. If the product is to be used in applications for which the hazards are not fully understood it is recommended to consult the supplier before use.
STORAGE Acrylic polymers are supplied in either bags or bulk containers. Keep containers in a clean, cool and dry area away from heat sources. Natural ventilation is adequate.
 Storage Temperature Ambient.
 Incompatible materials: None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Substance	CAS No.	OSHA PEL TWA	ACGIH TWA	ACGIH STEL	Company Std. TWA	Company Std. STEL
Particulates (Total dust) (Respirable dust)		15 mg/m ³ 5 mg/m ³	Not established.			
The following values apply to substances which may be evolved during thermal processing.						

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Ethyl methacrylate	97-63-2	100 ppm 410 mg/m ³	50 ppm (205 mg/m ³)	100 ppm (410 mg/m ³) (SEN;A4)	50 ppm	100 ppm
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Appropriate engineering controls Do not eat, drink or smoke at the work place. Provide adequate ventilation, including appropriate local extraction, to ensure that the occupational exposure limit is not exceeded. Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required. Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection



Wear eye/face protection.

Safety spectacles/goggles/full face shield.

Skin protection



Not normally required.

Respiratory protection



A suitable dust mask or dust respirator with filter type P may be appropriate. In the unlikely event of formation of particularly high levels of dust a self contained breathing apparatus may be appropriate.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Beads.
Color.	White.
Odour	Typically methacrylate.
pH (Value)	Not applicable.
Boiling Point (°C)	Not applicable.
Flash point (°C)	Not available.
Relative Evaporation Rate (Ether = 1)	Not applicable.
Flammable Limits	Not applicable.
Vapour pressure (Pascal)	Not applicable.
Vapor Density (Air=1)	Not applicable.
Specific Gravity	1.18
Solubility (Water)	Negligible.
Solubility (Other)	Not available.
Partition coefficient (n-Octanol/water)	Not applicable.
Viscosity (mPa. s)	Not available.
Explosive Properties	Not applicable.
Oxidising Properties	Not applicable.

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10. STABILITY AND REACTIVITY

Reactivity	Non-reactive material.
Chemical Stability	Stable under normal conditions.
Hazardous Reactions	None known.
Conditions to avoid	Keep away from heat.
Materials to avoid	None known.
Hazardous Decomposition Product(s)	Ethyl methacrylate, Carbon dioxide, Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	
Ingestion	Low oral toxicity.
Inhalation	Unlikely to be hazardous by inhalation.
Skin Contact	Unlikely to cause skin irritation. Contains greater than 0.1% residual (Ethyl methacrylate). During normal handling this will not constitute a hazard. If the polymer matrix is destroyed e.g. when the product is dissolved in organic solvent, chemical residues will be released from the polymer matrix. Under these conditions, they may produce an allergic reaction in persons already sensitised.
Eye Contact	Dust may cause irritation.

12. ECOLOGICAL INFORMATION

Ecotoxicity	The product is predicted to have low toxicity to aquatic organisms.
Persistence and degradability	The product is non-biodegradable in soil. There is no evidence of degradation in soil and water.
Bioaccumulative potential	The product has low potential for bioaccumulation.
Mobility	The product is predicted to have low mobility in soil.
Other adverse effects	None known.

13. DISPOSAL CONSIDERATIONS

The waste is considered to be non hazardous. Clean scrap may be reprocessed. Incineration may be used to recover energy value. May be disposed of by landfill in accordance with local regulations. Certain packages are returnable. Please consult your local office for further details. Ensure that all packaging is disposed of safely.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF	Not Classified as Dangerous for Transport. TRANSPORTATION)
UN No.	Not applicable.
Proper Shipping Name	Not applicable.
Class	Not applicable.

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Packing group Not applicable.
Environmental hazards Not applicable. Special precautions for user Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

15. REGULATORY INFORMATION

US Federal Regulations

SARA 302 - Extremely Hazardous Substances Not applicable.
SARA 313 - Toxic Chemicals NONE

US State Regulations

California SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM None known. SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER None known.

Canadian Regulations

WHMIS Classification Not classified.

16. OTHER INFORMATION

The following sections contain revisions or new statements: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16

Date of preparation: 28 -May- 2014

Inventory Status

European Union To the best of our knowledge all chemicals in this product comply with REACH regulations.
United States (TSCA) Listed in TSCA
Canada (DSL/NDSL) Listed in DSL
Japan (ENCS) Listed in ENCS
Philippines (PICCS) Listed in PICCS
Australia (AICS) Listed in AICS
South Korea (KECI) Listed in KECI
China (IECSC) Listed in IECSC

LEGEND

Note: Not all of the following are necessarily contained in this Safety Data Sheet:

LTEL: Long Term Exposure Limit

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

PEL: Permissible Exposure Levels

OSHA: Occupational Safety and Health Administration

SARA: Superfund Amendments and Reauthorisation Act

WHMIS: Worker Hazardous Materials Information System

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