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Material Safety Data Sheet - Acrylic

1. Chemical product and company identification

Product name	Berman Resin - Translucent Panels
Product Identification	Acrylic Sheet
Manufacturer/Supplier	Joel Berman Glass Studios
MSDA Prepared by	Joel Berman Engineering
Chemical Name	Poly Methyl Methacrylate
Synonym(s)	PMMA
Molecular Formula	not applicable
Molecular weight	not applicable
Product Use	plastic
OSHA Status	nonhazardous

2. Composition information on ingredients

Typical composition is given, and may vary. A certificate of analysis can be provided

Weight %	Component	CAS Registry NO.
90-99% - 99% is typical	olymethyl methacrylate (PMMA or other Acrylic copolymer)	9010-88-2
<1% typical	Methyl methacrylate (MMA)	80-62-6
<1% typical	Ethyl acrylate	140-88-5
5-10% - <1% typical	Acrylic styrene copolymer N	not available

One or more of the following co-components may be present in trace amounts: Polyester, Rayon, Aluminum, Raimie, Cotton, Linen, Natural straw or foliage, Paper

3. Hazards Identification

Skin contact:	Caution! Molten material will produce thermal burns
Eye Contact:	Caution! MMA vapors from heated product can irritate the eyes.
Inhalation:	Caution! Inhalation of MMA vapors from heated product can cause nausea headache, dizziness, as well as irritation of the lungs, nose and throat.
Chronic (Cancer)	No evidence of adverse effects; adverse effects unlikely
Teratology (Birth defects)	No information, but adverse effects unlikely
HMIS® Hazard Ratings	Health- 1, Flammability- 1, Chemical Reactivity- 0

In the United States of America, refer to NFPA® Pamphlet No. 654, "Prevention of Fire and Dust Explosions in the Chemical, Dye, Pharmaceutical, and Plastics Industries."

HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

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4. First-Aid Measures

Inhalation:	If symptomatic, move to fresh air. Get medical attention if symptoms persist.
Eyes:	If molten material or dust contacts the eye, immediately flush with water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention immediately.
Skin:	If burned by contact with molten material, cool as quickly as possible. Do not peel material from skin. Get medical attention. For contact with the material in solid state form, wash skin with soap and water.
Ingestion:	Material is not expected to be absorbed from the gastrointestinal tract so that induction of vomiting should not be necessary.
Note to Physicians:	Burns should be treated as thermal burns. The material will come off as healing occurs: therefore, immediate removal from the skin is not necessary.

5. Physical and Chemical Properties

Physical Form:	Solid (panel)
Appearance:	Clear to opaque
Odor:	Slight
Specific Gravity:	1.19
Softening Point:	>132° C / >270° F
Solubility in water	Insoluble
Flash Point:	Not applicable, combustible solid
Auto-ignition Temperature	460° C / 860° F)ASTM E659)

6. Stability and Reactivity

Stability:	Stable under normal and anticipated storage and handling conditions
Incompatibility:	Acids, alkalis, strong oxidizing agents and acetone
Hazardous Polymerization:	Will not occur.
Thermal Decomposition:	Thermal decomposition or combustion may emit methyl methacrylate (MMA) vapors, carbon monoxide or carbon dioxide

7. Fire Fighting Measures

Extinguishing Media:	Water spray dry chemical foam or carbon dioxide
Fire Fighting Procedures:	Wear self contained air purifying respirator (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear.
Hazardous Combustion:	Carbon dioxide, carbon monoxide
Products:	
Unusual Fire and Explosion Hazards:	Heated material can cause flammable vapors with air.

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8. Waste Disposal/Accidental Release Measures

Disposal:	Product can be disposed by incineration at a facility that complies with local, state and federal regulations.
Accidental Release:	In case of spill, sweep, scoop or pick up and remove to a suitable container.

9. Handling and Storage

Maximum Storage Temperature:	160° C / 320° F. Extensive storage at higher temperatures will emit MMA vapors, carbon dioxide or carbon monoxide.
Storage measures:	Store at ambient temperature when possible. Keep from contact with oxidizing materials. Minimize dust generation and accumulation. Store panels in flat stacks.
Handling Measures:	Avoid temperatures <300° C / <570° F Sawing, cutting or routing of Acrylic product generates "inert" or "nuisance" dust. Blower collection systems or exhaust ventilation systems should be installed to prevent airborne contaminant dispersion due to Cutting, sawing or thermal forming operations.

10. Exposure Controls/Personal Protection

Country specific exposure limits have not been established or are not applicable unless listed below

Ventilation:	Good general ventilation (typically 10 air changes per hour) should be Used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances such as poorly ventilated spaces, mechanical generation of dusts, heating, drying, etc.
Respiratory Protection:	None required under normal circumstances. However, if engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: dust, organic vapor.
Eye Protection:	Wear a face shield or safety glasses with side shields when working Working with molten material, or when sawing, cutting or routing the material.
Skin Protection:	Wear cotton or canvas gloves to protect against thermal burns, cuts and abrasions to hands.
Recommended Destination Facilities:	Eye bath, washing facilities

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11. Toxicological Information

No toxicity information is available. Health hazard assessment is based on information that is available on the properties of its components.

Ingestion:	The acute oral LD50 in rate is likely to fall above 5000 mg/kg. This material is classified as practically non-toxic by ingestion.
Eye Contact:	Other than the mechanical abrasion, no irritation is likely to develop following contact with the human eye.
Skin Contact:	No irritation is likely to develop following contact with the skin.
Skin Absorption:	This product will not be absorbed through the skin.
Inhalation:	No toxic effects are known to be associated with inhalation of dust from this material. If product is heated, residual monomer vapor may cause irritation to nose, throat, and lungs, and cause dizziness, headache or nausea.
Other Exposure Effects:	No other adverse clinical effects have been associated with exposures to this material.

12. Regulatory Information

Comprehensive Environmental Compensation, and Liability Act	Under section of 102(a) of the act, this product is NOT designated as Hazardous. No reportable quantities and no notification requirements to the National Response Center in Washington DC are set forth for its release from a vessel, an offshore or onshore Facility (40 CFR Part 261)
Research Conservation and Recovery Act (RCRA): Toxic Substances Control Act (TSCA):	This material is identified as solid but NOT hazardous waste by RCRA legislation (40 CFR Part 302) PMMA is not listed on the U.S. TSCA Chemical Substances inventory, whereas MMA is listed. Manufacturers, importers, and Processors of this mixture are not subject to reporting health and Safety studies under the act (40 CFR Part 716)
Superfund Amendment and Reauthorization Act of 1986 (SARA)	This substance belongs to the chronic effects hazard category as defined by the OSHA Hazard Communication Standard due to possible MMA emissions. Reporting thresholds of the material the commission, the committee, and the fire department with jurisdiction over the facility is not required as the concentration of its MMA constituent is below the minimum concentrations (40 CFR Part 730)

13. Transport Information

Marine Pollutant Components:	None unless listed below
DOT (USA):	Class not regulated
ICAO Status:	Class not regulated
IMDG Status:	Class not regulated

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14. Other Information

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