

# Dayson Polymers, LLC

P.O. Box 372

Rittman, Ohio 44270

phone: 330-335-5237 fax: 330-335-6085

## MATERIAL SAFETY DATA SHEET

DIAPOLYACRYLATE CO., LTD  
100/64 30th Floor, Sathorn Nakron Tower,  
North Sathorn Road, Khwang Silom,  
Khet Bangrak, Bangkok 10500, Thailand  
Tel: (662) 6367579-81  
Fax (662) 6367582  
Date of Issue: June 1, 2000

### SECTION I GENERAL INFORMATION

CHEMICAL NAME	2-Prpopenoicacid, 2-methyl-,methjylester, homopolymer
TRADE NAME	ACRYPET MF
GENERIC NAME	Acrylic Molding Pellets
SYNONYMS	Poly (methyl methacrylate)
CHEMICAL FORMULA	(C <sub>5</sub> H <sub>8</sub> O <sub>2</sub> ) <sub>x</sub>
CASRN	9011-87-4

DOT Proper Shipping Name	: Not regulated
DOT Hazard Class/ID No.	: Not regulated
DOT Label	: Not regulated

### SECTION II – HAZARDOUS INGREDIENTS

Ingredients TWA	CASRN	Appro. Wt %	OSHA PEL TWA	ACGIH	TLV
Acrylic Polymer (Poly (methyl methacrylate))	9011-87-4	99<	As nuisance 5mg/m <sup>3</sup> (respirable fraction) 15 mg/m <sup>3</sup> (total dust)	particulates	10mg/m <sup>3</sup>
Residual Monomer (Methyl methacrylate)	80-62-6	0.5>	100 ppm	100 ppm	

ACRYPET is registered trademark of DIAPOLYACRYLATE CO., LTD.

### SECTION III – PHYSICAL/CHEMICAL PROPERTY INFORMATION

APPEARANCE/ODOR	Colorless granules, mild sweet-sharp odor
VISCOSITY	Not Applicable
MELTING POINT OR FREEZING POINT	85 °C(Softening Point)
VAPOR PRESSURE	Not Applicable
VAPOR DENSITY	Not Applicable
SOLUBILITY IN WATER	Practically insoluble
PERCENT VOLATILE	Nil
SPECIFIC GRAVITY	1.19 (water = 1)
EVAPORATION RATE	Not Applicable
WEIGHT PER GALLON	9.93

---

**SECTION IV FIRE AND EXPLOSION DATA**

---

FLASH POINT	Not Applicable
AUTOIGNITION TEMPERATURE	421 °C (790°F)
UPPER EXPLOSION LIMIT	Not Applicable
LOWER EXPLOSION LIMIT	Not Applicable
EXTINGUISHING MEDIA	CO <sub>2</sub> dry chemical, water spray, chemical foam

**SPECIAL FIREFIGHTING PROCEDURES**

This material is a combustible thermoplastic material which will melt and drip when ignited and give off monomers and combustion products which may be toxic. Firefighters and others who may be exposed to products of decomposition and combustion should wear full protective gear including self-contained breathing apparatus.

**FIRE AND EXPLOSION HAZARDS**

---

Once ignited this material will burn vigorously with intense heat. Dust generated during handling and/or storage of this material can form explosive mixtures with air.

---

**SECTION V REACTIVITY DATA**

---

STABILITY	Stable
CONDITIONS TO AVOID	Polymer decomposition is dependent upon time and temperature. Decomposition will proceed rapidly at temperatures above 300 °C (572 °F)
INCOMPATIBILITY	None Known
MATERIALS TO AVOID	None Known
HAZARDOUS DECOMPOSITION PRODUCTS	
Thermal decomposition may yield methyl methacrylate monomer as well as other decomposition products including carbon monoxide and carbon dioxide.	
HAZARDOUS POLYMERIZATION	Will not occur
CONDITIONS TO AVOID	Not Applicable

---

**SECTION VI HEALTH HAZARD DATA**

---

**TOXICITY DATA:**

Poly(methyl methacrylate) is an experimental tumorigenic by implant route.

Implant (rat) TDLo	127 mg/kg equivocal tumorigenic agent
Implant (mouse) TDLo	800 mg/kg equivocal tumorigenic
Implant (rat) TD	1882 mg/kg equivocal tumorigenic agent
Implant (mouse) TD	13 g/kg equivocal tumorigenic agent
Implant (mouse) TD	1280 mg/kg equivocal tumorigenic agent

**CARCINOGENICITY:**

IARC: Not classifiable as human carcinogen (Group 3); human evidence – no adequate data, animal evidence – inadequate.

**SIGNS AND SYMPTOMS OF EXPOSURE:****EYE CONTACT:**

Dust as well as organic vapors which may be released when the polymer is heated during processing may irritate eyes.

**SKIN CONTACT:**

Dust particles and monomers released during processing may cause irritation of the skin on prolonged or repeated contact.

**INHALATION:**

Dust inhalation which may occur at greater than exposure levels (OSHA, TWA 5 mg/m<sup>3</sup> respirable fraction, 15 mg/m<sup>3</sup> total dust) as well as monomer inhalation which may occur at greater than exposure levels (OSHA TWA 100 ppm) may cause irreversible irritation to the lungs. Low levels of monomer vapors may be generated when the polymer is heated during processing which may cause irritation of the lining of the air passages of the nose, throat and lungs. Nausea, headache and/or dizziness may be experienced.

**INGESTION:** No significant signs or symptoms indicative of any adverse health hazard are expected to occur as a result of ingestion.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:**

Persons with known lung conditions should avoid exposure.

**EFFECTS OF OVEREXPOSURE:**

ACUTE:	Unknown
CHRONIC	Unknown

---

## EMERGENCY AND FIRST AID PROCEDURES:

### EYE CONTACT:

In case of eye contact, immediately flush with plenty of clean water for twenty to thirty minutes. The eye should be held open and

flooded with water so that all surfaces are thoroughly washed. Seek emergency medical attention if pain, blinking, tears or redness persists.

### SKIN CONTACT:

Remove contaminated clothing as needed. Wash affected area thoroughly with plenty of soap and water for a minimum of 15 minutes.

### INHALATION:

Move subject to fresh air. All rescuers should make sure they have proper respiratory equipment operational before attempting rescue. If subject is no longer breathing, mouth-to-mouth resuscitation, artificial respiration or cardio-pulmonary resuscitation should begin immediately. Seek medical attention immediately.

### INGESTION:

If swallowed, dilute by giving 2 glasses of water to drink and obtain emergency medical attention. Placing finger in throat may also be effective in inducing vomiting. Never give anything by mouth to a person if he is unconscious.

---

## SECTION VII SPILL OR LEAK PROCEDURES

---

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Eliminate all ignition sources. Ventilate area. Avoid breathing dust and vapor. Wear respirator suitable for dust concentration encountered (MSHA/NIOSH-approved or equivalent). Dampen resin with water mist spray and scoop or shovel solid material into a suitable container for recovery or disposal, Keep dust to a minimum. Floor may be slippery; use care to avoid falling.

### WASTE DISPOSAL METHODS

Place polymer granules in air-tight bag. Incinerate or landfill according to current local, state and federal regulations.

---

## SECTION VIII SPECIAL PROTECTION INFORMATION

---

### VENTILATION TYPE:

Provide mechanical local exhaust at point of handling and use.

### RESPIRATORY PROTECTION:

Wear dust respirator, (MSHA/NIOSH-approved or equivalent) suitable for concentrations encountered.

### PROTECTIVE GLOVES:

Wear impervious gloves.

### EYE PROTECTION:

Wear safety glasses (ANSI Z-87.1 or approved equivalent).

### PROTECTIVE CLOTHING:

Wear protective clothing when prolonged or frequent exposure to dust and decomposition products are expected.

### WORK/HYGIENIC PRACTICES:

Handle material only in areas with sufficient local exhaust ventilation to maintain airborne concentrations at recognized health and safety levels. Avoid prolonged breathing of vapors and decomposition products. Avoid eye contact. Wash hands thoroughly before eating or drinking. Do not smoke when handling or using product.

### OTHER PROTECTIVE EQUIPMENT:

Provide eyewash fountain and safety shower.

---

## SECTION IX SPECIAL PRECAUTIONS

---

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

When handling and processing the material, local exhaust ventilation may be required to control polymer dust and reduce exposure to organic vapors and other odors. To prevent dust explosions employ bonding and grounding for operations capable of generating static electricity. Protect all equipment from explosions by following the guidelines in NFPA-68 and NFPA-69. For electrical equipment follow local codes and electrical classification NFPA-70, National Electrical Code Class II, division II group G.

Storage of the material may be done indoor or outdoor. The storage temperature should not exceed 60 ° (140 °F) . In the case of indoor storage, the storage area should be limited to areas equipped with automatic sprinklers. Avoid all ignition sources. Avoid high concentrations of dust in air accumulation of dust on equipment. A fine dust of this material can create dust explosion.

---

---

---

SECTION X REGULATORY INFORMATION

---

---

METHYL METHACRYLATE (CASRN 80-62-6) is listed under CERCLA Hazardous Substances subject to Section 304: and Toxic Chemicals subject to Section 813. It is also listed under OSHA Air Contaminants; ACHIH TLV Chemicals; and IARA Unclassifiable as well as the Right to Know Hazardous Substance List for the State of New Jersey and the Hazardous Substance List of the State of Pennsylvania.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA)  
40 CFR, 302.4

Requires notifying the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQs).

Components present in this product at a level which could require reporting under the statute are:

METHYL METHACRYLATE

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT  
SARA TITLE III, 1986

40 CFR 355 (ALSO SARA 302, 304, 311 & 312)

Emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs).

Components present in this product at a level which could require reporting under the statute are:

METHYL METHACRYLATE RQ = 1000 lbs.

40 CFR (FOR SARA 313)

Submission of annual reports of release of toxic chemicals that appear in this information must be included in all MSDSs that are copied and distributed for this material.

Components present in this product at a level which could require reporting under the statute are:

METHYL METHACRYLATE

DISCLAIMER

The information contained in this Material Safety Data Sheet was compiled from sources which we believe are reliable and to represent the most reasonable current opinion on the subject when the Material Safety Data Sheet was prepared. However the information is provided without any warranty, guaranty or representation, express or implied, regarding its correctness or sufficiency. The user of this product must decide for itself what means are necessary to safely use this product, either alone or in combination with other products.

---

ACRYPET is a registered trademark of DIAPOLYACRYLATE CO. LTD

---