



## MATERIAL SAFETY DATA SHEET

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### 1- COMMERCIAL NAME : Acrylic Knifegrade

*Do not handle this material until the manufacturer's safety precautions have been read and understood! Regulations require that all employees be educated & trained on the Material Safety Data Sheets for all products with which they come in contact.*

### 2- COMPOSITION/INFORMATION ON INGREDIENTS :

CHEMICAL NAME	C.A.S	QTY%
1. Methyl Methacrylate Monomer	80-62-6	60-70
2. Triethylene Glycol Dimethacrylate Esters	109-16-0	1-10
3. Acrylates Copolymer	9010-88-2	15-25

### 3- HAZARDS IDENTIFICATION :

**Exposure Limits :** (Methyl Methacrylate) - see section 15.

**Health Hazard :** Irritant ( Methyl Methacrylate) - **Target Organs - eyes, skin, and respiratory tract.**

**Fire Hazard :** Flammable (Methyl Methacrylate) - Class 1b.

**Explosion Hazard :** Hazardous (Methyl Methacrylate) - polymerization may occur.

### 4- FIRST AID MEASURES :

- **Change any soiled clothing immediately.**

- **In case of eye contact :** Open eyelids as far as possible and flush with large quantities of water for at least fifteen minutes. Seek immediate medical attention.

- **In case of skin contact :** Physically remove the product and wash skin thoroughly with soap and water. Consult a physician if skin irritation occurs.

- **In case of swallowing :** Do not induce vomiting; seek immediate medical attention.

- **In case of inhalation :** Remove the patient from the contaminated area. Consult physician if aftereffects occur.

### 5- FIRE-FIGHTING MEASURES :

#### 5-1 Fire-extinguisher types :

Use : chemical foam, CO<sub>2</sub>, powder, or any Class B extinguishing agent. Where the fire is of major proportions, water spray may also be used.

#### 5-2 Specific fire and explosion risks :

Heat or contamination may cause hazardous polymerization. If polymerization takes place in closed container, there is a possibility of violent rupture of the container. Product vapors may form explosive mixture in the air.

#### 5-3 specific protective measures during firefighting :

Firefighting personnel should be equipped with insulated, autonomous respiratory protection equipment.

**COMMERCIAL NAME : Acrylic Knifegrade****6- ACCIDENTAL RELEASE MEASURES :****6-1 Individual protection :**

**Ventilation :** General ventilation is required during normal use.

**Remove all sources of ignition, open flame, and/or heat.**

**Respiratory protection :** If PEL or TLV listed in this data sheet is exceeded, then suitable respiratory protection must be worn to prevent over-exposure.

**Protective gloves :** Wear appropriate impervious gloves to prevent skin contact.

**Eye protection :** Wear protective safety glasses with side-shields or face shield.

**Other protection :** Wear appropriate clothing to prevent skin contact.

**6-2 Environmental protection :** Please see § 12

**6-3 Decontamination procedures :**

- **Remove all sources of ignition and ventilate area. Remove non-essential personnel.**

- Contain spilt material in order to avoid its transfer to sewers or rivers and streams.

- Physically remove the material.

- Cover product with sand, earth, or any other similar absorbent substance in order to soak up material. The resulting mix may then be shoveled into containers and removed for proper disposal (see § 13).

**7- HANDLING AND STORAGE :****7-1 Handling :**

- **Remove all sources of ignition, open flame, and/or heat.**

- Keep containers tightly closed; observe label precautions.

- Inform personnel of risks associated with the product, the precautions to be taken and procedures to follow where an accident occurs.

- Observe personal hygiene rules to avoid contact with eyes and skin.

- Avoid inhaling vapors produced by the material, especially when heated and/or sprayed.

- Install showers and eye baths ("fountain" type).

- Ensure sufficient ventilation, including appropriate local air extraction, in order to comply with workplace exposure limits. Where vapors could escape into the air, local specific means of ventilation will be necessary.

- Wash hands thoroughly at beginning of every work break and at the end of the working day.

- Work stations and the general working area must be kept perfectly clean.

- Avoid exposure to the material of persons having suffered from eczema or any other skin condition.

**7-2 Storage :**

- Vapors are inhibited and may form polymers in vents or flame arresters, resulting in blockage of vents.

- Keep the material hermetically sealed in its original packaging, protected from humidity and at a temperature between 59 and 77°F / 15 and 25°C in a well-ventilated storage facility.

- Ensure that the floor of the storage area is impermeable and concave to provide effective containment.

- Keep the product away from food.

- Reproduce labeling on all new packs where original packaging is divided.

**8- EXPOSURE CONTROLS/PERSONAL PROTECTION :**

**8-1 Exposure controls :** Always maintain airborne contaminants in the workplace at the lowest possible levels.

**8-2 Personal protection :**

- Respiratory protection : NIOSH approved respirator, if needed (see § 15)

- Eye protection : YES, safety glasses with side shields or chemical splash goggles

- Skin protection : YES, protective gloves, such as nitrile, latex or rubber

**Do not mix work clothing and normal clothing. Wash hands thoroughly at beginning of every work break and at the end of each workday.**

**COMMERCIAL NAME : Acrylic Knifegrade****9- PHYSICAL AND CHEMICAL PROPERTIES :**

**Physical state :** paste

**Color :** clear

**Odor :** strong, acrid

**pH :** not established

**Flash point :** 52.7°F / 11.5°C

**VOC (grams per liter) :** 630 g/l

**Percentage of VOC's (by weight) :** 62.6%

**Specific gravity :** 1

**Solubility :**

- in water : at 68°F / 20°C : 1.6% by weight
- in solvents : YES (soluble in many organic solvents : benzene hydrocarbons and chlorinated hydrocarbons, acetone, phthalates, methanol, ethanol, etc.)

**10- STABILITY AND REACTIVITY :****10-1 Dangerous decomposition by-products :**

- These are non-existent if storage and handling rules are followed (please see also § 5-2).
- Excessive heating over long periods causes product degradation and emission of irritating acrid fumes.

**10-2 Hazardous reactions with :**

- Exothermic (polymerization) reaction with strong oxidizers; may occur in presence of heat.

**11- TOXICOLOGICAL INFORMATION :**

**Primary route of entry :** Inhalation and skin absorption.

**Effects on eyes :** May be moderately irritating; causing pain, tearing, reddening, swelling and itching.

**Effects on skin :** Repeated or prolonged single exposure may cause irritation to the skin. May cause a cutaneous allergic reaction in predisposed individuals. Methyl Methacrylate can penetrate the skin and cause systemic effects similar to those identified under acute inhalation exposure. **LD50 (rabbit): 35,500 mg/kg**

**Effects of inhalation :** May be irritating to the respiratory tract, may cause drowsiness, nausea, headache, fatigue, and dizziness. **4 hr. LC50 (rat): 7093 ppm**

**Effects on ingestion :** Causes irritation to the mouth, stomach tissue, and digestive tract. Vomiting may cause aspiration of the product resulting in chemical pneumonia. **LD50 (rat): 7900 mg/kg**

**Toxicological Information :** OSHA/NTP carcinogen: no; IARC Rating 3

**12- ECOLOGICAL INFORMATION :****Based on data for one or more similar products :**

Ecotoxicity : low potential for bioaccumulation; high mobility in soil; low toxicity to fish (LC50>100mg/L); to algae (EC50hr: 170mg/L); harmful to aquatic invertebrates (EC5048hr: 69mg/L).

Biodegradability : not readily biodegradable; can be removed in biological treatment processes.

**13- DISPOSAL CONSIDERATIONS :****Waste Disposal :**

If discarded, this material should be treated as Hazardous Waste based on the characteristic of ignitability-D001.

**Container Disposal :**

Empty containers may not be disposed of unless all remaining material adhering to the internal walls have been removed. Empty containers should be disposed of in accordance with all applicable laws and regulations.

**COMMERCIAL NAME : Acrylic Knifegrade****14- TRANSPORT INFORMATION :****DOT Regulations/Information :**Proper Shipping Name : **Methyl Methacrylate Monomer, Stabilized**Hazard Class : **3 (Flammable)**UN/NA Number : **UN1247**Packaging Group : **II**

Internal label : H0035020

**15- REGULATORY INFORMATION :****US Federal Regulations :****Toxic Substances Control Act (TSCA) :**

All components are included in the EPA Toxic Substances Control Act Chemical Substance Inventory.

**OSHA Hazard Communication Standards (CFR29) :**

Health (§1910.1200) - Irritant

Fire (§1910.1200) - Flammable; Class 1b

**Exposure Limits (§1910.1000) : Methyl Methacrylate (80-62-6)**OSHA PEL : 100ppm (410mg/m<sup>3</sup>) for an 8-hr TWAACGIH TLV : 100ppm (410mg/m<sup>3</sup>) for an 8-hr TWA***Manufacturer Recommended : 50 ppm(205mg/m<sup>3</sup>) 8hr TWA; 100ppm (410mg/m<sup>3</sup>) 15 min. STEL*****EPA SARA Title III :****CERCLA RQ** : 1,000 pounds (Methyl Methacrylate (CAS 80-62-6)**Section 302** - Extremely Hazardous Chemicals: none**Section 311/312** - Hazard Categories: Immediate Health hazard, Fire hazard, Reactivity hazard.**Section 313** - Toxic Chemicals: Methyl Methacrylate (CAS 80-62-6) 60-70%

*You may be required to submit this MSDS to state and local emergency response agencies (SERC & LEPC) and to your local fire department based on the chemical and quantity stored at your location. Call the EPA Hotline @ (800)535-0202 for more information or further assistance with chemical reporting requirements.*

**16- OTHER INFORMATION :****HMIS Ratings: Ratings Key: 4 = Highest hazard, 0 = Lowest hazard, \* = Chronic Health Hazard**

Health	2*
Fire	3
Reactivity	2

**REVEALING MODIFICATION : Acrylic.PDF**

Revised : 1/24/2011 Supersedes sheet : 8/29/2007 This sheet provides a complement to the product use instructions but does not replace them. The information it contains is based on our current knowledge of the product concerned at the date of drafting. That information is given in good faith and does not in any circumstances remove from the user his duty to be aware of and to follow all legal regulations and statutes covering his activities. The user takes sole responsibility for application of safety measures covering the use of the product he is aware of. We also draw the user's attention to the risks attached to any use of the product for applications for which it was not designed.  
Form: GBAcrylics.PDF.New Logo 1/2011