

|   |   |   |
|---|---|---|
| <b>MATERIAL IDENTIFICATION AND USE</b><br>Material Name: JBC's Clear Monomer<br>Synonyms: | <b>Safety Data Sheet</b><br> | Supplier: JBC and Company<br>Address: 10484 Ranch Road 965<br>Fredericksburg, TX 78624<br>Tel: 830-685-3700<br>Fax: 830-685-3703<br>email: info@jbcandcompany.com |
|---|---|---|

## SECTION 1: Identification

|  |   |
|--|---|
| <b>Product identifier:</b>                 | JBC's Clear Monomer   |
| <b>Product number(s)</b>                   | Z-2, Z-8, Z-16, Z-32  |
| <b>Supplier's details</b>                  | JBC and Company, 10484 Ranch Road 965, Fredericksburg, TX 78624 |
| <b>Phone &amp; Emergency phone number:</b> | Phone: 830-685-3700      CHEMTRAC: 800-424-9300                 |

## SECTION 2: Hazard identification

### Classification of the substance or mixture

#### GHS classification in accordance with OSHA (29 CFR 1910.1200)

- Flammable liquids (chapter 2.6), Cat. 2
- Skin corrosion/irritation (chapter 3.2), Cat. 2
- Sensitization, skin (chapter 3.4), Cat. 1B
- Specific target organ toxicity, single exposure (chapter 3.8), Cat. 3

### GHS label elements, including precautionary statements

#### Pictogram



#### Signal word

**Danger**

#### Hazard statement(s)

|      |                                     |
|------|-------------------------------------|
| H225 | Highly flammable liquid and vapor   |
| H315 | Causes skin irritation              |
| H317 | May cause an allergic skin reaction |
| H335 | May cause respiratory irritation    |
| H336 | May cause drowsiness or dizziness   |

#### Precautionary statement(s)

|      |   |
|------|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. |
| P233 | Keep container tightly closed.  |
| P241 | Use explosion-proof electrical/ventilating/lighting/.../equipment.                              |
| P242 | Use only non-sparking tools.  |
| P243 | Take precautionary measures against static discharge.   |
| P261 | Avoid breathing dust/fume/gas/mist/vapors/spray.  |
| P264 | Wash ... thoroughly after handling.   |

# Safety Data Sheet

## JBC's Clear Monomer

|                |   |
|----------------|---|
| P271           | Use only outdoors or in a well-ventilated area.   |
| P272           | Contaminated work clothing should not be allowed out of the workplace.                              |
| P362+P364      | Take off contaminated clothing and wash it before reuse.  |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection.                          |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P304+P340      | IF INHALED: Remove person to fresh air and keep comfortable for breathing.                          |
| P312           | Call a POISON CENTER/doctor/... if you feel unwell.   |
| P332+P313      | If skin irritation occurs: Get medical advice/attention.  |
| P333+P313      | If skin irritation or a rash occurs: Get medical advice/attention.                                  |
| P403+P233      | Store in a well ventilated place. Keep container tightly closed.                                    |
| P235+P410      | Keep cool. Protect from sunlight  |
| P501           | Dispose of contents/container to ...  |

### Other hazards which do not result in classification

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

---

## SECTION 3: Composition/information on ingredients

### Mixtures - Hazardous components

#### 1. METHYL METHACRYLATE

|               |                 |
|---------------|-----------------|
| Concentration | < 99 % (Weight) |
| EC no.        | 201-297-1       |
| CAS no.       | 80-62-6         |
| Index no.     | 607-035-00-6    |

- Flammable liquids (chapter 2.6), Cat. 2
- Specific target organ toxicity, single exposure (chapter 3.8), Cat. 3
- Skin corrosion/irritation (chapter 3.2), Cat. 2
- Sensitization, skin (chapter 3.4), Cat. 1

|      |                                     |
|------|-------------------------------------|
| H225 | Highly flammable liquid and vapor   |
| H315 | Causes skin irritation              |
| H317 | May cause an allergic skin reaction |
| H335 | May cause respiratory irritation    |

#### 2. Ethylene glycol dimethacrylate crosslinker

|               |                      |
|---------------|----------------------|
| Concentration | < 0 - > 5 % (Weight) |
| CAS no.       | 97-90-5              |

#### 3. Fragrance

|               |                        |
|---------------|------------------------|
| Concentration | < 0 - > 0.4 % (Weight) |
|---------------|------------------------|

#### 4. N,N-dimethyl-p-toluidine

|               |                        |
|---------------|------------------------|
| Concentration | < 0 - > 0.8 % (Weight) |
| EC no.        | 202-805-4              |
| CAS no.       | 99-97-8                |
| Index no.     | 612-056-00-9           |

### Trade secret statement (OSHA 1910.1200(i))

Exact percentages have been broadened to protect Trade Secret per OSHA 1910.1200(i)

## **SECTION 4: First-aid measures**

### **Description of necessary first-aid measures**

|                         |   |
|-------------------------|---|
| General advice          | First aider needs to protect himself. Take off all contaminated clothing immediately. Medical treatment is necessary if symptoms occur which are obviously caused by skin or eye contact with product or by inhalation of its vapors. Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. |
| If inhaled              | Remove to fresh air. If breathing is difficult, seek medical attention.   |
| In case of skin contact | Wash off with soap and plenty of water. Remove contaminated clothing and shoes. Obtain medical attention if irritation develops or persists. Wash clothing before reuse.  |
| In case of eye contact  | Immediately flush eyes with plenty of water. Seek immediate medical attention.  |
| If swallowed            | Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.   |

### **Most important symptoms/effects, acute and delayed**

Headache, confusion, skin sensitization, causes skin and eye irritation.

### **Indication of immediate medical attention and special treatment needed, if necessary**

No data available.

---

## **SECTION 5: Fire-fighting measures**

### **Suitable extinguishing media**

Foam, dry chemical or carbon dioxide.

### **Specific hazards arising from the chemical**

Carbon oxides may be released in cases of fire. Flash back possible over considerable distance. Container explosion may occur under fire conditions.

### **Special protective actions for fire-fighters**

Keep personnel removed and upwind of fire. Full protective equipment, including self-contained breathing apparatus. Cool container with water spray. Fight fires from a distance. Heat may rupture containers. Vapors are uninhibited and may form polymers in vents or arresters, resulting in stoppage of vents.

---

## **SECTION 6: Accidental release measures**

### **Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

### **Environmental precautions**

Prevent product from getting into drains/surface water/groundwater.

### **Methods and materials for containment and cleaning up**

Larger quantities: Remove mechanically (by pumping). Use explosion-proof equipment!

Smaller quantities and/or residues: Contain with absorbent material (e.g. sand, diatomaceous earth, acid absorbent, universal absorbent or sawdust). Dispose of in accordance with regulations.

## **SECTION 7: Handling and storage**

### **Precautions for safe handling**

Safe handling advice - Keep away from heat. Keep away from sparks, flames and other sources of ignition. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing vapor or mist. Use only with adequate ventilation. Container hazardous when empty. Follow all SDS/label precautions even after the container is emptied. Emptied container retains vapor and product residue. Residual vapors might explode on ignition; do not apply heat.

Advice on protection against fire and explosion - Keep away from sources of ignition --- NO Smoking. Take precautionary measures against static discharges. In the event of fire, cool the endangered containers with water. When heated above flash point and/or during spraying (atomizing), ignitable mixtures may form in air. Use only explosion-proof equipment.

### **Conditions for safe storage, including any incompatibilities**

Product is to be stored in the container in which it is supplied at a temperature not exceeding 30 °C / 86 °F. Store in a cool, dry place with lid closed. Store in the dark. Rule out exposure to sunlight or UV-radiation. In order to maintain the required oxygen level in the monomer, open stored bottles and containers every 2 to 4 weeks so as to exchange the air. A gentle swirling of the container will assist in this process.

---

## **SECTION 8: Exposure controls/personal protection**

### **Control parameters**

#### **CAS: 80-62-6**

Methyl methacrylate

Cal/OSHA: 50 ppm, (ST) 100 ppm PEL inhalation; NIOSH: 100 ppm REL inhalation; OSHA: 410 mg/m3 PEL inhalation

### **Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Use process enclosures, local exhaust ventilation or other engineering controls to control airborne exposure.

### **Individual protection measures, such as personal protective equipment (PPE)**

#### **Eye/face protection**

Face shield. Safety glasses (ANSI Z87.01 or approved equivalent).

#### **Skin protection**

Handle with gloves. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Nitrile rubber gloves with a minimum thickness of 0.11 mm. Gloves must be inspected prior to use. Gloves should be replaced regularly, especially after extended contact with the product. In practice, due to variable exposure conditions, this information can only be an aid to orientation for the selection of suitable chemical protection. In particular, this information does not substitute suitability tests by the end user.

#### **Respiratory protection**

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

#### **Environmental exposure controls**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## **SECTION 9: Physical and chemical properties**

### **Information on basic physical and chemical properties**

|   |  |
|---|--|
| Appearance/form                         | Colorless liquid                               |
| Odor                                    | Ester-like                                     |
| Odor threshold                          | 0.05 - 0.34 ppm                                |
| pH                                      | No data available.                             |
| Melting point/freezing point            | -48 °C / -54 °F                                |
| Initial boiling point and boiling range | 100.3 °C / 214 °F @ 760 mmHg                   |
| Flash point                             | 10 °C / 51 °F                                  |
| Evaporation rate                        | 3,1 (butyl acetate = 1)                        |
| Flammability (solid, gas)               | Not applicable                                 |
| Upper/lower flammability limits         | 12.5 % / 2.1 %                                 |
| Upper/lower explosive limits            | 2.1 % / 12.5 %                                 |
| Vapor pressure                          | 26 °C / 68 °F @ 40 mmHg                        |
| Vapor density                           | ca. 3.5  |
| Relative density                        | No data available.                             |
| Solubility(ies)                         | 1.6 % Ester in Water and 1.25 % Water in Ester |
| Partition coefficient: n-octanol/water  | No data available.                             |
| Decomposition temperature               | No data available.                             |
| Viscosity                               | 0.53 mPa s @ 20 °C / 68 °F                     |

---

## **SECTION 10: Stability and reactivity**

### **Reactivity**

See Section 10.2 - Chemical stability

### **Chemical stability**

This product is stable under normal storage conditions.

### **Possibility of hazardous reactions**

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions. This product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.

### **Conditions to avoid**

This product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.

### **Incompatible materials**

Free radical initiators. Reducing agents. Tertiary amines. Heavy metals. Peroxides. Oxidizing agents. Mineral acids.

### **Hazardous decomposition products**

None when used as directed.

## **SECTION 11: Toxicological information**

### **Information on toxicological effects**

#### **Acute toxicity**

METHYL METHACRYLATE

LD50 Oral - Rat - 7,872 mg/kg; LD50 Skin - Rabbit - > 5,000 mg/kg; LC50 Inhalation - Rat - 5,303.3 ppm - 4 hrs

#### **Skin corrosion/irritation**

METHYL METHACRYLATE

Skin - Rabbit - Result: not irritating - slightly irritating

#### **Serious eye damage/irritation**

METHYL METHACRYLATE

Eye - Rabbit - Result: not irritating - slightly irritating

#### **Respiratory or skin sensitization**

METHYL METHACRYLATE

Skin - Mouse, LLNA (Local Lymph Node Assay) - Result: sensitizing; Skin - Human - Result: various types of allergic reactions have been observed including, but not limited to, headache, eye irritations and skin affections.

#### **Carcinogenicity**

Non-carcinogenic in inhalation and feeding studies carried out on rats, mice and dogs.

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

#### **Reproductive toxicity**

No indications of toxic effects were observed in reproduction studies in animals.

non-teratogenic, not embryotoxic

#### **Summary of evaluation of the CMR properties**

No

#### **STOT-single exposure**

respiratory tract, (irritation) Category 3 (UN-GHS)

#### **STOT-repeated exposure**

No evidence for hazardous properties

#### **Aspiration hazard**

METHYL METHACRYLATE

NOAEL Inhalation - Rat - 25 ppm - 2 Years - Findings: Damage to mucous membranes in the nose at 400 ppm

#### **Additional information**

Avoid contact with the skin and eyes and inhalation of the product vapors.

---

## **SECTION 12: Ecological information**

### **Toxicity**

METHYL METHACRYLATE

LC50 - Oncorhynchus mykiss (rainbow trout) - > 79 mg/l; NOEC - Danio rerio (zebra fish) - 9.4 mg/l

EC50 - Daphnia magna (water flea) - 69 mg/l - 48 hrs.; NOEC - Daphnia magna (water flea) - 25 ppm37 mg/l - 21 days

EC3 cell proliferation inhibition test - Pseudomonas putida - 100 mg/l - 16 hrs.; NOEC - Selenastrum capricornutum - > 110 mg/l - 72 hrs.

EC50 - Selenastrum capricornutum - > 110 mg/l - 72 hrs.

# Safety Data Sheet

## JBC's Clear Monomer

### **Persistence and degradability**

Readily biodegradable, according to appropriate OECD test. The substance photodegrades rapidly when exposed to air.

### **Bioaccumulative potential**

Accumulation in organisms is not expected due to the coefficient of distribution of n-octanol in water (log Pow).

### **Mobility in soil**

Binding to the solid soil phase, sediment or clarification sludge is not expected. The substance evaporates gradually into the atmosphere from the surface of the water. If the substance does get into the environment, it tends to remain in the compartment it was discharged into.

### **Results of PBT and vPvB assessment**

PBT: no vPvB: no

### **Other adverse effects**

Prevent substance from entering soil, natural bodies of water and sewer systems.

---

## **SECTION 13: Disposal considerations**

### **Disposal of the product**

Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method. JBC and Company encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste.

### **Disposal of contaminated packaging**

Empty containers must be handled with care due to product residue. DO NOT HEAT THE EMPTY CONTAINER.

---

## **SECTION 14: Transport information**

### **DOT (US)**

UN Number: 1247

Class: 3

Packing Group: II

Proper Shipping Name: METHYL METHACRYLATE MONOMER, STABILIZED

ERG: 129P

Marine pollutant: No

### **IMDG**

UN Number: 1247

Class: 3

Packing Group: II

EMS Number: F-E, S-D

Proper Shipping Name: METHYL METHACRYLATE MONOMER, STABILIZED

### **IATA**

UN Number: 1247

Class: 3

Packing Group: II

Proper Shipping Name: METHYL METHACRYLATE MONOMER, STABILIZED

# Safety Data Sheet

## JBC's Clear Monomer

---

### SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

#### Massachusetts Right To Know Components

Chemical name: Methyl methacrylate  
CAS number: 80-62-6

#### New Jersey Right To Know Components

Common name: METHYL METHACRYLATE  
CAS number: 80-62-6

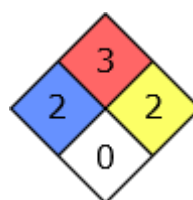
#### Pennsylvania Right To Know Components

Chemical name: 2-Propenoic acid, 2-methyl-, methyl ester  
CAS number: 80-62-6

#### HMIS Rating

| JBC's Clear Monomer |   |
|---------------------|---|
| HEALTH              | 2 |
| FLAMMABILITY        | 3 |
| PHYSICAL HAZARD     | 2 |
| PERSONAL PROTECTION |   |

#### NFPA Rating



---

### SECTION 16: Other information

**Prepared by:** JBC and Company in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

**Revision Indicator:** New SDS

**Disclaimer:** The information contained herein is accurate to the best of our knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. JBC and Company makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances.