

Issue Date 27-May-2015

Revision Date 30-Mar-2017

Version 1

**1. IDENTIFICATION****Product identifier****Product Name** Fusionbond 371A**Other means of identification****Product Code** MS-371A**UN/ID no.** UN1247**Synonyms** None**Recommended use of the chemical and restrictions on use****Recommended Use** Adhesives.**Uses advised against** None known**Details of the supplier of the safety data sheet****Manufacturer Address**Hernon Manufacturing Inc.  
121 Tech Drive  
Sanford, FL 32771  
800-527-0004**Emergency telephone number****Company Phone Number** 407-322-4000**Emergency Telephone** Chemtel 800-255-3924**2. HAZARDS IDENTIFICATION****Classification****OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|  |                           |
|--|---------------------------|
| Acute toxicity - Oral                            | Category 4                |
| Acute toxicity - Dermal                          | Category 4                |
| Skin corrosion/irritation                        | Category 1 Sub-category A |
| Serious eye damage/eye irritation                | Category 1                |
| Skin sensitization                               | Category 1                |
| Carcinogenicity                                  | Category 2                |
| Specific target organ toxicity (single exposure) | Category 3                |
| Flammable liquids                                | Category 2                |

**Label elements****Emergency Overview****Danger****Hazard statements**Harmful if swallowed  
Harmful in contact with skin  
Causes severe skin burns and eye damage  
May cause an allergic skin reaction  
Suspected of causing cancer  
May cause respiratory irritation

Highly flammable liquid and vapor



**Appearance** No information available

**Physical state** Liquid

**Odor** Pungent

#### **Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Wear protective gloves/protective clothing/eye protection/face protection  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Do not breathe dusts or mists  
Contaminated work clothing must not be allowed out of the workplace  
Use only outdoors or in a well-ventilated area  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
Keep container tightly closed  
Ground/bond container and receiving equipment  
Use explosion-proof electrical/ ventilating / lighting / equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge  
Keep cool

#### **Precautionary Statements - Response**

Specific treatment (see supplemental first aid instructions on this label)  
Immediately call a POISON CENTER or doctor  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Immediately call a POISON CENTER or doctor  
Call a POISON CENTER or doctor if you feel unwell  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower  
If skin irritation or rash occurs: Get medical advice/attention  
Wash contaminated clothing before reuse  
IF INHALED: Remove person to fresh air and keep comfortable for breathing  
Immediately call a POISON CENTER or doctor  
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell  
Rinse mouth  
Do NOT induce vomiting  
In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish

#### **Precautionary Statements - Storage**

Store locked up  
Store in a well-ventilated place. Keep container tightly closed

#### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

#### **Hazards not otherwise classified (HNOC)**

Not applicable

#### **Other Information**

Harmful to aquatic life with long lasting effects  
Harmful to aquatic life

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance

| Chemical Name         | CAS No.    | Weight-% | Trade Secret |
|-----------------------|------------|----------|--------------|
| METHYL METHACRYLATE   | 80-62-6    | 30 - 60  | *            |
| METHACRYLIC ACID      | 79-41-4    | 7 - 13   | *            |
| BUTYL HYDROXY TOLUENE | 128-37-0   | 1 - 5    | *            |
| TITANIUM DIOXIDE      | 13463-67-7 | 0.1 - 1  | *            |

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

#### Description of first aid measures

|                     |  |
|---------------------|--|
| <b>Eye contact</b>  | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.   |
| <b>Skin contact</b> | Wash with soap and water. Flush skin with water for several minutes. Remove contaminated clothing and shoes. If irritation develops, seek medical attention. Wash clothing before reuse. |
| <b>Inhalation</b>   | Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately.                                   |
| <b>Ingestion</b>    | Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor/physician if you feel unwell.  |

#### Most important symptoms and effects, both acute and delayed

**Symptoms** No information available.

#### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

#### Suitable extinguishing media

Dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray.

**Unsuitable extinguishing media** No information available.

#### Specific hazards arising from the chemical

No information available.

**Hazardous combustion products** Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Aldehydes. Organic acids.

#### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

#### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas.

**For emergency responders** Use personal protection recommended in Section 8.

### Environmental precautions

**Environmental precautions** Do not allow into any sewer, on the ground or into any body of water. See Section 12 for additional ecological information.

### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Eliminate sources of ignition. Prevent additional discharge of material, if possible to do so without hazard. Immediately contact emergency personnel. Keep unnecessary personnel away. Avoid contact with material.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Wash thoroughly after handling. Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep at temperatures between 7 and 29 °C. Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

**Incompatible materials** Acids. Bases. Peroxides. Metals. Oxidizing agents. Combustible material.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

| Chemical Name                     | ACGIH TLV  | OSHA PEL   | NIOSH IDLH   |
|-----------------------------------|--|--|--|
| METHYL METHACRYLATE<br>80-62-6    | STEL: 100 ppm<br>TWA: 50 ppm                             | TWA: 100 ppm<br>TWA: 410 mg/m <sup>3</sup><br>(vacated) TWA: 100 ppm<br>(vacated) TWA: 410 mg/m <sup>3</sup> | IDLH: 1000 ppm<br>TWA: 100 ppm<br>TWA: 410 mg/m <sup>3</sup> |
| METHACRYLIC ACID<br>79-41-4       | TWA: 20 ppm  | (vacated) TWA: 20 ppm<br>(vacated) TWA: 70 mg/m <sup>3</sup><br>(vacated) S*                                 | TWA: 20 ppm<br>TWA: 70 mg/m <sup>3</sup>                     |
| BUTYL HYDROXY TOLUENE<br>128-37-0 | TWA: 2 mg/m <sup>3</sup> inhalable fraction<br>and vapor | (vacated) TWA: 10 mg/m <sup>3</sup>  | TWA: 10 mg/m <sup>3</sup>                                    |
| TITANIUM DIOXIDE<br>13463-67-7    | TWA: 10 mg/m <sup>3</sup>                                | TWA: 15 mg/m <sup>3</sup> total dust<br>(vacated) TWA: 10 mg/m <sup>3</sup> total<br>dust                    | IDLH: 5000 mg/m <sup>3</sup>                                 |

### Appropriate engineering controls

**Engineering Controls** Showers  
Eyewash stations

Ventilation systems.

### Individual protection measures, such as personal protective equipment

|                                 |   |
|---------------------------------|---|
| <b>Eye/face protection</b>      | Wear safety glasses with side shields (or goggles).   |
| <b>Skin and body protection</b> | Wear protective gloves and protective clothing. Use rubber or plastic gloves.   |
| <b>Respiratory protection</b>   | If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. |

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

|                       |                          |                       |                          |
|-----------------------|--------------------------|-----------------------|--------------------------|
| <b>Physical state</b> | Liquid                   | <b>Odor</b>           | Pungent                  |
| <b>Appearance</b>     | No information available | <b>Odor threshold</b> | No information available |
| <b>Color</b>          | White                    |                       |                          |

| <u>Property</u>                       | <u>Values</u>             | <u>Remarks • Method</u> |
|---------------------------------------|---------------------------|-------------------------|
| <b>pH</b>                             | Does not apply            |                         |
| <b>Melting point / freezing point</b> | No information available  |                         |
| <b>Boiling point / boiling range</b>  | 101 °C / 214 °F           |                         |
| <b>Flash point</b>                    | 10 °C / 50 °F             |                         |
| <b>Evaporation rate</b>               | No information available  |                         |
| <b>Flammability (solid, gas)</b>      | No information available  |                         |
| <b>Flammability Limit in Air</b>      |                           |                         |
| <b>Upper flammability limit:</b>      | 12.5% Methyl Methacrylate |                         |
| <b>Lower flammability limit:</b>      | 2.1% Methyl Methacrylate  |                         |
| <b>Vapor pressure</b>                 | 29.25 mmHg @20°C          |                         |
| <b>Vapor density</b>                  | 3.5                       |                         |
| <b>Relative density</b>               | 1.04                      |                         |
| <b>Water solubility</b>               | Slightly soluble          |                         |
| <b>Solubility in other solvents</b>   | No information available  |                         |
| <b>Partition coefficient</b>          | No information available  |                         |
| <b>Autoignition temperature</b>       | No information available  |                         |
| <b>Decomposition temperature</b>      | No information available  |                         |
| <b>Kinematic viscosity</b>            | No information available  |                         |
| <b>Dynamic viscosity</b>              | No information available  |                         |
| <b>Explosive properties</b>           | No information available  |                         |
| <b>Oxidizing properties</b>           | No information available  |                         |

### Other Information

|                         |                          |
|-------------------------|--------------------------|
| <b>Softening point</b>  | No information available |
| <b>Molecular weight</b> | No information available |
| <b>VOC Content (%)</b>  | No information available |
| <b>Density</b>          | No information available |
| <b>Bulk density</b>     | No information available |

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

Hazardous polymerization may occur.

**Conditions to avoid**

Keep away from heat, sparks and open flame. Extremes of temperature and direct sunlight. Incompatible materials.

**Incompatible materials**

Acids. Bases. Peroxides. Metals. Oxidizing agents. Combustible material.

**Hazardous Decomposition Products**

Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

|                     |                    |
|---------------------|--------------------|
| <b>Inhalation</b>   | No data available. |
| <b>Eye contact</b>  | No data available. |
| <b>Skin contact</b> | No data available. |
| <b>Ingestion</b>    | No data available. |

| Chemical Name                     | Oral LD50  | Dermal LD50   | Inhalation LC50        |
|-----------------------------------|--|---|------------------------|
| METHYL METHACRYLATE<br>80-62-6    | 8420 - 10000 mg/kg ( Rat ) = 7872<br>mg/kg ( Rat ) | > 5 g/kg ( Rabbit ) 5000 - 7500<br>mg/kg ( Rabbit )   | = 7093 ppm ( Rat ) 4 h |
| METHACRYLIC ACID<br>79-41-4       | = 1060 mg/kg ( Rat )                               | = 500 mg/kg ( Rabbit ) 500 - 1000<br>mg/kg ( Rabbit ) | = 7.1 mg/L ( Rat ) 4 h |
| BUTYL HYDROXY TOLUENE<br>128-37-0 | = 890 mg/kg ( Rat )                                | > 2000 mg/kg ( Rat )                                  | -                      |
| TITANIUM DIOXIDE<br>13463-67-7    | > 10000 mg/kg ( Rat )                              | -   | -                      |

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity**

| Chemical Name                        | ACGIH | IARC     | NTP | OSHA |
|--------------------------------------|-------|----------|-----|------|
| METHYL METHACRYLATE<br>80-62-6       | -     | Group 3  | -   | -    |
| BUTYL HYDROXY<br>TOLUENE<br>128-37-0 | -     | Group 3  | -   | -    |
| TITANIUM DIOXIDE<br>13463-67-7       | -     | Group 2B | -   | X    |

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document.

|                           |                |
|---------------------------|----------------|
| ATEmix (oral)             | 1,162.00 mg/kg |
| ATEmix (dermal)           | 1,190.00 mg/kg |
| ATEmix (inhalation-vapor) | 29.24 mg/l     |

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Harmful to aquatic life with long lasting effects

| Chemical Name                     | Algae/aquatic plants  | Fish   | Crustacea                         |
|-----------------------------------|---|--|-----------------------------------|
| METHYL METHACRYLATE<br>80-62-6    | 170: 96 h Pseudokirchneriella subcapitata mg/L EC50   | 243 - 275: 96 h Pimephales promelas mg/L LC50 flow-through<br>125.5 - 190.7: 96 h Pimephales promelas mg/L LC50 static<br>79: 96 h Oncorhynchus mykiss mg/L LC50 flow-through<br>79: 96 h Oncorhynchus mykiss mg/L LC50 static<br>153.9 - 341.8: 96 h Lepomis macrochirus mg/L LC50 static<br>170 - 206: 96 h Lepomis macrochirus mg/L LC50 flow-through<br>326.4 - 426.9: 96 h Poecilia reticulata mg/L LC50 static | 69: 48 h Daphnia magna mg/L EC50  |
| BUTYL HYDROXY TOLUENE<br>128-37-0 | 6: 72 h Pseudokirchneriella subcapitata mg/L EC50<br>0.42: 72 h Desmodesmus subspicatus mg/L EC50 | 5: 48 h Oryzias latipes mg/L LC50  | -                                 |
| Insoluble Saccharin<br>81-07-2    | -   | 18300: 96 h Pimephales promelas mg/L LC50  | -                                 |
| DEQUEST 2010<br>2809-21-4         | -   | 868: 96 h Lepomis macrochirus mg/L LC50 static<br>360: 96 h Oncorhynchus mykiss mg/L LC50 static   | 527: 48 h Daphnia magna mg/L EC50 |

**Persistence and degradability**

No information available.

**Bioaccumulation**

| Chemical Name                     | Partition coefficient |
|-----------------------------------|-----------------------|
| METHYL METHACRYLATE<br>80-62-6    | 0.7                   |
| METHACRYLIC ACID<br>79-41-4       | 0.93                  |
| BUTYL HYDROXY TOLUENE<br>128-37-0 | 4.17                  |

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods**

|                               |   |
|-------------------------------|---|
| <b>Disposal of wastes</b>     | Disposal should be in accordance with applicable regional, national and local laws and regulations. |
| <b>Contaminated packaging</b> | Do not reuse container.   |
| <b>US EPA Waste Number</b>    | U162  |

| Chemical Name                  | RCRA | RCRA - Basis for Listing          | RCRA - D Series Wastes | RCRA - U Series Wastes |
|--------------------------------|------|-----------------------------------|------------------------|------------------------|
| METHYL METHACRYLATE<br>80-62-6 | U162 | Included in waste stream:<br>F039 | -                      | U162                   |

| Chemical Name                  | California Hazardous Waste Status |
|--------------------------------|-----------------------------------|
| METHYL METHACRYLATE<br>80-62-6 | Toxic<br>Ignitable                |

#### 14. TRANSPORT INFORMATION

##### DOT

**UN/ID no.** UN1247  
**Proper shipping name** Methyl Methacrylate Monomer, Stabilized  
**Hazard Class** 3  
**Packing Group** II  
**Special Provisions** None

##### CANADIAN TDG

**UN/ID no.** UN1247  
**Proper shipping name** Methyl Methacrylate Monomer, Stabilized  
**Hazard Class** 3  
**Packing Group** II  
**Special Provisions** None

##### IATA

**UN/ID no.** UN1247  
**Proper shipping name** Methyl Methacrylate Monomer, Stabilized  
**Hazard Class** 3  
**Packing Group** II  
**Special Provisions** None

##### IMDG

**UN/ID no.** UN1247  
**Proper shipping name** Methyl Methacrylate Monomer, Stabilized  
**Hazard Class** 3  
**Packing Group** II  
**EmS-No.** F-E, S-D  
**Marine pollutant** None

#### 15. REGULATORY INFORMATION

##### International Inventories

**TSCA** Complies  
**DSL/NDSL** Complies  
**EINECS/ELINCS** Complies  
**ENCS** Complies  
**IECSC** Complies  
**KECL** Complies  
**PICCS** Complies  
**AICS** Complies

All ingredients are on the inventory or are exempt from listing.

##### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances



ENCS - Japan Existing and New Chemical Substances  
 IECSC - China Inventory of Existing Chemical Substances  
 KECL - Korean Existing and Evaluated Chemical Substances  
 PICCS - Philippines Inventory of Chemicals and Chemical Substances  
 AICS - Australian Inventory of Chemical Substances

### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name                 | SARA 313 - Threshold Values % |
|-------------------------------|-------------------------------|
| METHYL METHACRYLATE - 80-62-6 | 1.0                           |

#### SARA 311/312 Hazard Categories

|                                   |     |
|-----------------------------------|-----|
| Acute health hazard               | Yes |
| Chronic Health Hazard             | Yes |
| Fire hazard                       | Yes |
| Sudden release of pressure hazard | No  |
| Reactive Hazard                   | Yes |

#### CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name                  | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|--------------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| METHYL METHACRYLATE<br>80-62-6 | 1000 lb                     | -                      | -                         | X                          |

#### CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical Name                  | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ)                  |
|--------------------------------|--------------------------|----------------|---|
| METHYL METHACRYLATE<br>80-62-6 | 1000 lb                  | -              | RQ 1000 lb final RQ<br>RQ 454 kg final RQ |

### US State Regulations

#### California Proposition 65

This product contains the following Proposition 65 chemicals

| Chemical Name                 | California Proposition 65 |
|-------------------------------|---------------------------|
| TITANIUM DIOXIDE - 13463-67-7 | Carcinogen                |

#### U.S. State Right-to-Know Regulations

| Chemical Name                     | New Jersey | Massachusetts | Pennsylvania |
|-----------------------------------|------------|---------------|--------------|
| METHYL METHACRYLATE<br>80-62-6    | X          | X             | X            |
| METHACRYLIC ACID<br>79-41-4       | X          | X             | X            |
| BUTYL HYDROXY TOLUENE<br>128-37-0 | X          | X             | X            |
| TITANIUM DIOXIDE<br>13463-67-7    | X          | X             | X            |

#### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

|                    |                  |                |                    |                                    |
|--------------------|------------------|----------------|--------------------|------------------------------------|
| <b><u>NFPA</u></b> | Health hazards 0 | Flammability 0 | Instability 0      | Physical and Chemical Properties - |
| <b><u>HMIS</u></b> | Health hazards 2 | Flammability 3 | Physical hazards 2 | Personal protection X              |

Prepared By SDS coordinator  
Issue Date 27-May-2015  
Revision Date 30-Mar-2017

**Revision Note**

No information available

**Disclaimer**

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

Issue Date 03-Jun-2015

Revision Date 30-Mar-2017

Version 1

**1. IDENTIFICATION****Product identifier****Product Name** Fusionbond 371B**Other means of identification****Product Code** MS-371B**UN/ID no.** UN1247**Synonyms** None**Recommended use of the chemical and restrictions on use****Recommended Use** Adhesives.**Uses advised against** None known**Details of the supplier of the safety data sheet****Manufacturer Address**Hernon Manufacturing Inc.  
121 Tech Drive  
Sanford, FL 32771  
800-527-0004**Emergency telephone number****Company Phone Number** 407-322-4000**Emergency Telephone** Chemtel 800-255-3924**2. HAZARDS IDENTIFICATION****Classification****OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|  |            |
|--|------------|
| Acute toxicity - Oral                            | Category 4 |
| Acute toxicity - Dermal                          | Category 4 |
| Skin corrosion/irritation                        | Category 2 |
| Serious eye damage/eye irritation                | Category 2 |
| Skin sensitization                               | Category 1 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Flammable liquids                                | Category 2 |

**Label elements****Emergency Overview****Danger****Hazard statements**Harmful if swallowed  
Harmful in contact with skin  
Causes skin irritation  
Causes serious eye irritation  
May cause an allergic skin reaction  
May cause respiratory irritation  
Highly flammable liquid and vapor

**Appearance** No information available**Physical state** Liquid**Odor** Pungent**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Contaminated work clothing must not be allowed out of the workplace  
Use only outdoors or in a well-ventilated area  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
Keep container tightly closed  
Ground/bond container and receiving equipment  
Use explosion-proof electrical/ ventilating / lighting/ equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge  
Keep cool  
Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

Specific treatment (see supplemental first aid instructions on this label)  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention  
Call a POISON CENTER or doctor if you feel unwell  
If skin irritation or rash occurs: Get medical advice/attention  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower  
Wash contaminated clothing before reuse  
IF INHALED: Remove person to fresh air and keep comfortable for breathing  
Call a POISON CENTER or doctor if you feel unwell  
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell  
Rinse mouth  
In case of fire: Use CO2, dry chemical, or foam to extinguish

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep container tightly closed  
Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

Harmful to aquatic life with long lasting effects  
Harmful to aquatic life

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance

| Chemical Name  | CAS No.    | Weight-% | Trade Secret |
|--|------------|----------|--------------|
| METHYL METHACRYLATE                                      | 80-62-6    | 60 - 100 | *            |
| Poly(methylmethacrylate-acrylonitrile-butadiene-styrene) | 9010-94-0  | 10 - 30  | *            |
| Aldehyde-amine condensate                                | 34562-31-7 | 1 - 5    | *            |

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

#### Description of first aid measures

|                     |  |
|---------------------|--|
| <b>Eye contact</b>  | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.   |
| <b>Skin contact</b> | Wash with soap and water. Flush skin with water for several minutes. Remove contaminated clothing and shoes. If irritation develops, seek medical attention. Wash clothing before reuse. |
| <b>Inhalation</b>   | Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately.                                   |
| <b>Ingestion</b>    | Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor/physician if you feel unwell.  |

#### Most important symptoms and effects, both acute and delayed

**Symptoms** No information available.

#### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

#### Suitable extinguishing media

Dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray.

**Unsuitable extinguishing media** No information available.

#### Specific hazards arising from the chemical

No information available.

**Hazardous combustion products** Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Aldehydes. organic acids.

#### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

#### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

- Personal precautions** Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas.
- For emergency responders** Use personal protection recommended in Section 8.

### Environmental precautions

- Environmental precautions** Do not allow into any sewer, on the ground or into any body of water. See Section 12 for additional ecological information.

### Methods and material for containment and cleaning up

- Methods for containment** Prevent further leakage or spillage if safe to do so.
- Methods for cleaning up** Eliminate sources of ignition. Prevent additional discharge of material, if possible to do so without hazard. Immediately contact emergency personnel. Keep unnecessary personnel away. Avoid contact with material.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

- Advice on safe handling** Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Wash thoroughly after handling. Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

### Conditions for safe storage, including any incompatibilities

- Storage Conditions** Keep at temperatures between 7 and 29 °C. Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).
- Incompatible materials** Acids. Bases. Peroxides. Metals. Oxidizing agents. Combustible material.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

| Chemical Name                  | ACGIH TLV                    | OSHA PEL   | NIOSH IDLH   |
|--------------------------------|------------------------------|--|--|
| METHYL METHACRYLATE<br>80-62-6 | STEL: 100 ppm<br>TWA: 50 ppm | TWA: 100 ppm<br>TWA: 410 mg/m <sup>3</sup><br>(vacated) TWA: 100 ppm<br>(vacated) TWA: 410 mg/m <sup>3</sup> | IDLH: 1000 ppm<br>TWA: 100 ppm<br>TWA: 410 mg/m <sup>3</sup> |

### Appropriate engineering controls

- Engineering Controls** Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

- Eye/face protection** Wear safety glasses with side shields (or goggles).

|                                       |   |
|---------------------------------------|---|
| <b>Skin and body protection</b>       | Wear protective gloves and protective clothing. Use rubber or plastic gloves.   |
| <b>Respiratory protection</b>         | If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. |
| <b>General Hygiene Considerations</b> | Handle in accordance with good industrial hygiene and safety practice.  |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

|                       |                          |                       |                          |
|-----------------------|--------------------------|-----------------------|--------------------------|
| <b>Physical state</b> | Liquid                   | <b>Odor</b>           | Pungent                  |
| <b>Appearance</b>     | No information available | <b>Odor threshold</b> | No information available |
| <b>Color</b>          | Off White                |                       |                          |

| <u>Property</u>                       | <u>Values</u>             | <u>Remarks • Method</u> |
|---------------------------------------|---------------------------|-------------------------|
| <b>pH</b>                             | Does not apply            |                         |
| <b>Melting point / freezing point</b> | No information available  |                         |
| <b>Boiling point / boiling range</b>  | 101 °C / 214 °F           |                         |
| <b>Flash point</b>                    | 10 °C / 50 °F             |                         |
| <b>Evaporation rate</b>               | No information available  |                         |
| <b>Flammability (solid, gas)</b>      | No information available  |                         |
| <b>Flammability Limit in Air</b>      |                           |                         |
| <b>Upper flammability limit:</b>      | 12.5% Methyl Methacrylate |                         |
| <b>Lower flammability limit:</b>      | 2.1% Methyl Methacrylate  |                         |
| <b>Vapor pressure</b>                 | 29.25 mmHg @20°C          |                         |
| <b>Vapor density</b>                  | 3.5                       |                         |
| <b>Relative density</b>               | 0.97                      |                         |
| <b>Water solubility</b>               | Slightly soluble          |                         |
| <b>Solubility in other solvents</b>   | No information available  |                         |
| <b>Partition coefficient</b>          | No information available  |                         |
| <b>Autoignition temperature</b>       | No information available  |                         |
| <b>Decomposition temperature</b>      | No information available  |                         |
| <b>Kinematic viscosity</b>            | No information available  |                         |
| <b>Dynamic viscosity</b>              | No information available  |                         |
| <b>Explosive properties</b>           | No information available  |                         |
| <b>Oxidizing properties</b>           | No information available  |                         |

### Other Information

|                         |                          |
|-------------------------|--------------------------|
| <b>Softening point</b>  | No information available |
| <b>Molecular weight</b> | No information available |
| <b>VOC Content (%)</b>  | No information available |
| <b>Density</b>          | No information available |
| <b>Bulk density</b>     | No information available |

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

Hazardous polymerization may occur.

**Conditions to avoid**

Keep away from heat, sparks and open flame. Extremes of temperature and direct sunlight. Incompatible materials.

**Incompatible materials**

Acids. Bases. Peroxides. Metals. Oxidizing agents. Combustible material.

**Hazardous Decomposition Products**

Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

|                     |                    |
|---------------------|--------------------|
| <b>Inhalation</b>   | No data available. |
| <b>Eye contact</b>  | No data available. |
| <b>Skin contact</b> | No data available. |
| <b>Ingestion</b>    | No data available. |

| Chemical Name                  | Oral LD50  | Dermal LD50   | Inhalation LC50        |
|--------------------------------|--|---|------------------------|
| METHYL METHACRYLATE<br>80-62-6 | 8420 - 10000 mg/kg ( Rat ) = 7872<br>mg/kg ( Rat ) | > 5 g/kg ( Rabbit ) 5000 - 7500<br>mg/kg ( Rabbit ) | = 7093 ppm ( Rat ) 4 h |

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity**

| Chemical Name                  | ACGIH | IARC    | NTP | OSHA |
|--------------------------------|-------|---------|-----|------|
| METHYL METHACRYLATE<br>80-62-6 | -     | Group 3 | -   | -    |

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document.

|                                  |                |
|----------------------------------|----------------|
| <b>ATEmix (oral)</b>             | 548.00 mg/kg   |
| <b>ATEmix (dermal)</b>           | 1,095.00 mg/kg |
| <b>ATEmix (inhalation-vapor)</b> | 29.21 mg/l     |

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Harmful to aquatic life with long lasting effects



| Chemical Name                  | Algae/aquatic plants                                | Fish   | Crustacea                        |
|--------------------------------|---|--|----------------------------------|
| METHYL METHACRYLATE<br>80-62-6 | 170: 96 h Pseudokirchneriella subcapitata mg/L EC50 | 243 - 275: 96 h Pimephales promelas mg/L LC50 flow-through<br>125.5 - 190.7: 96 h Pimephales promelas mg/L LC50 static<br>79: 96 h Oncorhynchus mykiss mg/L LC50 flow-through<br>79: 96 h Oncorhynchus mykiss mg/L LC50 static<br>153.9 - 341.8: 96 h Lepomis macrochirus mg/L LC50 static<br>170 - 206: 96 h Lepomis macrochirus mg/L LC50 flow-through<br>326.4 - 426.9: 96 h Poecilia reticulata mg/L LC50 static | 69: 48 h Daphnia magna mg/L EC50 |

**Persistence and degradability**

No information available.

**Bioaccumulation**

| Chemical Name                  | Partition coefficient |
|--------------------------------|-----------------------|
| METHYL METHACRYLATE<br>80-62-6 | 0.7                   |

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging**

Do not reuse container.

**US EPA Waste Number**

U162

| Chemical Name                  | RCRA | RCRA - Basis for Listing          | RCRA - D Series Wastes | RCRA - U Series Wastes |
|--------------------------------|------|-----------------------------------|------------------------|------------------------|
| METHYL METHACRYLATE<br>80-62-6 | U162 | Included in waste stream:<br>F039 | -                      | U162                   |

| Chemical Name                  | California Hazardous Waste Status |
|--------------------------------|-----------------------------------|
| METHYL METHACRYLATE<br>80-62-6 | Toxic<br>Ignitable                |

**14. TRANSPORT INFORMATION****DOT**

UN/ID no. UN1247  
 Proper shipping name Methyl Methacrylate Monomer, Stabilized  
 Hazard Class 3  
 Packing Group II  
 Special Provisions None

**CANADIAN TDG**

UN/ID no. UN1247  
 Proper shipping name Methyl Methacrylate Monomer, Stabilized  
 Hazard Class 3  
 Packing Group II  
 Special Provisions None

**IATA**

|                      |   |
|----------------------|---|
| UN/ID no.            | UN1247                                  |
| Proper shipping name | Methyl Methacrylate Monomer, Stabilized |
| Hazard Class         | 3                                       |
| Packing Group        | II                                      |

**IMDG**

|                      |   |
|----------------------|---|
| UN/ID no.            | UN1247                                  |
| Proper shipping name | Methyl Methacrylate Monomer, Stabilized |
| Hazard Class         | 3                                       |
| Packing Group        | II                                      |
| EmS-No.              | F-E, S-D                                |
| Marine pollutant     | None                                    |

|                                   |
|-----------------------------------|
| <b>15. REGULATORY INFORMATION</b> |
|-----------------------------------|

**International Inventories**

|               |          |
|---------------|----------|
| TSCA          | Complies |
| DSL/NDSL      | Complies |
| EINECS/ELINCS | Complies |
| ENCS          | Complies |
| IECSC         | Complies |
| KECL          | Complies |
| PICCS         | Complies |
| AICS          | Complies |

All ingredients are on the inventory or are exempt from listing.

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name                 | SARA 313 - Threshold Values % |
|-------------------------------|-------------------------------|
| METHYL METHACRYLATE - 80-62-6 | 1.0                           |

**SARA 311/312 Hazard Categories**

|                                   |     |
|-----------------------------------|-----|
| Acute health hazard               | Yes |
| Chronic Health Hazard             | Yes |
| Fire hazard                       | Yes |
| Sudden release of pressure hazard | No  |
| Reactive Hazard                   | Yes |

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name                  | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|--------------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| METHYL METHACRYLATE<br>80-62-6 | 1000 lb                     | -                      | -                         | X                          |

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical Name                  | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ)                  |
|--------------------------------|--------------------------|----------------|---|
| METHYL METHACRYLATE<br>80-62-6 | 1000 lb                  | -              | RQ 1000 lb final RQ<br>RQ 454 kg final RQ |

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

| Chemical Name                  | New Jersey | Massachusetts | Pennsylvania |
|--------------------------------|------------|---------------|--------------|
| METHYL METHACRYLATE<br>80-62-6 | X          | X             | X            |

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

|                    |                  |                |                    |                                    |
|--------------------|------------------|----------------|--------------------|------------------------------------|
| <b><u>NFPA</u></b> | Health hazards 0 | Flammability 0 | Instability 0      | Physical and Chemical Properties - |
| <b><u>HMIS</u></b> | Health hazards 2 | Flammability 3 | Physical hazards 2 | Personal protection X              |

Prepared By SDS coordinator

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Revision Note

No information available

**Disclaimer**

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**