

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

076621387

**The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).**

076621304 076621312 076621379 076621395 076621437 076621445 076621452

**The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).**

076621205



# SAFETY DATA SHEET

Issue Date 03-Jan-2011

Revision Date 29-Apr-2013

Version 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product Identifier

**Product Name** Excel Formula Auto-Cure Orthodontic Material (Liquid)

Based on methyl methacrylate:

CAS-No. 80-62-6  
EU Index No. 607-035-00-6  
REACH No. 01-2119452498-28  
EINECS-No. 201-297-1

### Other Means of Identification

**SDS #** SGT-001

### Recommended Use of the Chemical and Restrictions on Use

**Recommended Use** Dental / Denture application.  
**Uses Advised Against** For Professional use only.

### Details of the Supplier of the Safety Data Sheet

#### **Supplier Address**

St. George Technology, Inc.  
P.O. Box 2849  
Wilmington, North Carolina 28402-2849

### Emergency Telephone Number

**Company Phone Number** 910-397-0781  
**Emergency Telephone** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

### Classification

|  |            |
|--|------------|
| 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 |

### Signal Word

**Danger**

### Hazard Statements

Causes skin irritation  
Causes severe eye irritation  
May cause an allergic skin reaction  
May cause respiratory irritation. May cause drowsiness or dizziness

Highly flammable liquid and vapor

**Appearance** Colorless or pink liquid**Physical State** Liquid**Odor** Characteristic**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Contaminated work clothing should 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 equipment  
 Use only non-sparking tools  
 Take precautionary measures against static discharge  
 Keep cool

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Get medical attention if irritation occurs  
 If skin irritation or rash occurs: Get medical advice/attention  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Call a POISON CENTER or doctor/physician if you feel unwell  
 In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

**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

**Other Hazards**

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

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name                         | CAS No         | Weight-%       |
|---------------------------------------|----------------|----------------|
| Methyl Methacrylate Monomer           | 80-62-6        | >90%           |
| <b>Ethylene Glycol Dimethacrylate</b> | <b>97-90-5</b> | <b>2.5-10%</b> |
| N, N-Dimethyl-p-toluidine             | 99-97-8        | <1%            |

Product contains a proprietary mixture of ingredients. \*Unlisted ingredients are not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

## 4. FIRST AID MEASURES

### First Aid Measures

|                       |   |
|-----------------------|---|
| <b>General Advice</b> | Provide this SDS to medical personnel for treatment.  |
| <b>Eye Contact</b>    | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. |
| <b>Skin Contact</b>   | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Seek medical attention if irritation develops.  |
| <b>Inhalation</b>     | Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.  |
| <b>Ingestion</b>      | Rinse mouth. Do NOT induce vomiting. Seek medical advice.   |

### Most Important Symptoms and Effects, both Acute and Delayed

|                 |   |
|-----------------|---|
| <b>Symptoms</b> | Overexposure by inhalation may cause CNS depression- drowsiness, dizziness, confusion or loss of coordination. May cause skin and eye irritation. May cause allergic skin reaction. Will cause gastrointestinal tract irritation. |
|-----------------|---|

### Indication of any Immediate Medical Attention and Special Treatment Needed

|                           |  |
|---------------------------|--|
| <b>Note to Physicians</b> | Treat symptomatically. Can cause allergic response in susceptible or hypersensitive individuals upon repeated or prolonged exposure. |
|---------------------------|--|

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Foam, Dry chemical, Carbon dioxide (CO2).

**Unsuitable Extinguishing Media** Water jet.

### Specific Hazards Arising from the Chemical

Vapors may travel to source of ignition and flash back.

|  |  |
|--|--|
| <b>Sensitivity to Static Discharge</b> | Take precautionary measures against static discharge. Flammable mixtures of this product are readily ignited even by static discharge. |
|--|--|

### 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

|                                  |   |
|----------------------------------|---|
| <b>Personal Precautions</b>      | Wear protective clothing as described in Section 8 of this safety data sheet. Remove all sources of ignition. The wet contaminated surface may be slippery.   |
| <b>Environmental Precautions</b> | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). See Section 12 for additional ecological information. |

### Methods and Material for Containment and Cleaning Up

|                                |  |
|--------------------------------|--|
| <b>Methods for Containment</b> | Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite).   |
| <b>Methods for Cleaning Up</b> | Use clean non-sparking tools to collect absorbed material. Sweep up absorbed material and shovel into suitable containers for disposal. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations. For waste disposal, see section 13 of the SDS. Wash spill area with a mild detergent. |

## 7. HANDLING AND STORAGE

### Precautions for Safe Handling

|                                |  |
|--------------------------------|--|
| <b>Advice on Safe Handling</b> | Handle in accordance with good industrial hygiene and safety practice. Wear appropriate personal protective equipment. Wash face, hands, and any exposed skin thoroughly after handling. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Take precautionary measures against static discharges. Ground container and transfer equipment to eliminate static electric sparks. Use spark-proof tools and explosion-proof equipment. Avoid breathing vapors or mists. Contaminated work clothing should not be allowed out of the workplace. Use only in well-ventilated areas. Keep containers closed when not in use. Keep cool. |
|--------------------------------|--|

### Conditions for Safe Storage, Including any Incompatibilities

|                               |   |
|-------------------------------|---|
| <b>Storage Conditions</b>     | Keep container tightly closed and store in a cool, dry and well-ventilated place. Store between 16°-26°C (69°-79°F). Store locked up. Protect from damp. Store away from heat and incompatible materials. |
| <b>Incompatible Materials</b> | Organic peroxides, Reducing agent, Metallic Redox systems, Strong oxidizing agents.   |

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

| Chemical Name               | ACGIH TLV                    | OSHA PEL  | NIOSH IDLH   |
|-----------------------------|------------------------------|---|--|
| Methyl Methacrylate Monomer | STEL: 100 ppm<br>TWA: 50 ppm | TWA: 100 ppm TWA: 410 mg/m <sup>3</sup> (vacated) TWA: 100 ppm (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

|                             |                               |
|-----------------------------|-------------------------------|
| <b>Engineering Controls</b> | Good ventilation is required. |
|-----------------------------|-------------------------------|

### Individual Protection Measures, such as Personal Protective Equipment

|                                       |   |
|---------------------------------------|---|
| <b>Eye/Face Protection</b>            | Splash goggles or safety glasses.   |
| <b>Skin and Body Protection</b>       | Polyethylene / Nitrile gloves. Do not use cotton gloves. Polyethylene apron is recommended.   |
| <b>Respiratory Protection</b>         | Ensure adequate ventilation, especially in confined areas. Use NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists. |
| <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>Appearance</b>              | Colorless or pink liquid | <b>Odor</b>             | Characteristic |
| <b>Color</b>                   | Colorless or pink        | <b>Odor Threshold</b>   | Not determined |
| <b>Property</b>                | <b>Values</b>            | <b>Remarks • Method</b> |                |
| pH                             | Not determined           |                         |                |
| Melting Point/Freezing Point   | Not determined           |                         |                |
| Boiling Point/Boiling Range    | 100 °C / 212 °F          | (at 760 mm Hg)          |                |
| Flash Point Evaporation        | 8 °C / 46.4 °F           | Tag Closed Cup          |                |
| Rate Flammability (Solid, Gas) | +1                       | (butyl acetate = 1)     |                |
| Upper Flammability Limits      | Not determined           |                         |                |
| Lower Flammability Limit       | 12%                      |                         |                |
| Vapor Pressure                 | 47hPa @ 20°C             |                         |                |
| Vapor Density                  | +1                       | (Air=1)                 |                |
| Specific Gravity               | -1                       | (1=Water)               |                |
| Water Solubility               | Slightly soluble         |                         |                |
| Solubility in Other Solvents   | Not determined           |                         |                |
| Partition Coefficient          | Not determined           |                         |                |
| Autoignition Temperature       | 430°C / 806°F            |                         |                |
| Decomposition Temperature      | Not determined           |                         |                |
| Kinematic Viscosity            | Not determined           |                         |                |
| Dynamic Viscosity              | Not determined           |                         |                |
| Explosive Properties           | Not determined           |                         |                |
| Oxidizing Properties           | Not determined           |                         |                |

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

Prolonged exposure to elevated temperatures which can cause premature polymerization and release methyl methacrylate vapors.

#### **Hazardous Polymerization**

Hazardous polymerization may occur.

### Conditions to Avoid

Temperatures >35°C (95°).

### Incompatible Materials

Organic peroxides, Reducing agent, Metallic Redox systems, Strong oxidizing agents.

### Hazardous Decomposition Products

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Information on Likely Routes of Exposure

#### **Product Information**

#### **Eye Contact**

Causes serious eye irritation.

#### **Skin Contact**

Causes skin irritation. May cause allergic skin reaction.

#### **Inhalation**

May cause irritation to the mucous membranes and upper respiratory tract.

**Ingestion**

Ingestion may cause irritation to mucous membranes.

**Component Information**

| Chemical Name               | Oral LD50            | Dermal LD50         | Inhalation LC50                              |
|-----------------------------|----------------------|---------------------|--|
| Methyl Methacrylate Monomer | = 7872 mg/kg ( Rat ) | > 5 g/kg ( Rabbit ) | = 4632 ppm ( Rat ) 4 h = 400 ppm ( Rat ) 1 h |

**Information on Physical, Chemical and Toxicological Effects****Symptoms**

Please see section 4 of this SDS for symptoms.

**Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure****Sensitization**

May cause an allergic skin reaction.

**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

| Chemical Name               | ACGIH | IARC    | NTP | OSHA |
|-----------------------------|-------|---------|-----|------|
| Methyl Methacrylate Monomer |       | Group 3 |     |      |

*IARC (International Agency for Research on Cancer)**Group 3 IARC components are "not classifiable as human carcinogens"***STOT - Single Exposure**

May cause respiratory irritation. May cause drowsiness or dizziness.

**Numerical Measures of Toxicity**

Not determined

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

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

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

**Persistence and Degradability**

Not determined

**Bioaccumulation**

Not determined

**Mobility**

| Chemical Name               | Partition Coefficient |
|-----------------------------|-----------------------|
| Methyl Methacrylate Monomer | 0.7                   |

**Other Adverse Effects**

Not determined

**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**

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

| Chemical Name               | RCRA | RCRA - Basis for Listing       | RCRA - D Series Wastes | RCRA - U Series Wastes |
|-----------------------------|------|--------------------------------|------------------------|------------------------|
| Methyl Methacrylate Monomer | U162 | Included in waste stream: F039 |                        | U162                   |

| Chemical Name               | California Hazardous Waste Status |
|-----------------------------|-----------------------------------|
| Methyl Methacrylate Monomer | Toxic<br>Ignitable                |

**14. TRANSPORT INFORMATION****Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**

Consumer Commodity

**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

**15. REGULATORY INFORMATION****International Inventories**

Not Determined

**Legend:***TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL - 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***US Federal Regulations****CERCLA**

| Chemical Name               | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ)                  |
|-----------------------------|--------------------------|----------------|---|
| Methyl Methacrylate Monomer | 1000 lb                  |                | RQ 1000 lb final RQ<br>RQ 454 kg final RQ |

**SARA 313**

| Chemical Name                 | CAS No | Weight-%    | SARA 313 - Threshold Values % |
|-------------------------------|--------|-------------|-------------------------------|
| Methyl Methacrylate Monomer - |        | Proprietary | 1.0                           |

**CWA (Clean Water Act)**

| Component                                      | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|--|-----------------------------|------------------------|---------------------------|----------------------------|
| Methyl Methacrylate Monomer<br>( Proprietary ) | 1000 lb                     |                        |                           | X                          |

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

| Chemical Name               | New Jersey | Massachusetts | Pennsylvania |
|-----------------------------|------------|---------------|--------------|
| Methyl Methacrylate Monomer | X          | X             | X            |

**16. OTHER INFORMATION****NFPA****Health Hazards**

Not determined

**Flammability**

Not determined

**Instability**

Not determined

**Special Hazards**

Not determined

**HMIS****Health Hazards**

Not determined

**Flammability**

Not determined

**Physical Hazards**

Not determined

**Personal Protection**

Not determined

**Issue Date**

03-Jan-2011

**Revision Date**

29-Apr-2013

**Revision Note**

New format

**Disclaimer**

The information provided in this 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-Jan-2011

Revision Date 31-May-2016

Version 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product Identifier

**Product Name** Excel Formula™ Auto-Cure Orthodontic Material (Liquid)

Based on methyl methacrylate:

CAS-No. 80-62-6  
EU Index No. 607-035-00-6  
REACH No. 01-2119452498-28  
EINECS-No. 201-297-1

### Other Means of Identification

**SDS #** SGT-001

### Recommended Use of the Chemical and Restrictions on Use

**Recommended Use** Dental / Denture application.  
**Uses Advised Against** For Professional use only.

### Details of the Supplier of the Safety Data Sheet

#### **Supplier Address**

St. George Technology, Inc.  
P.O. Box 2849  
Wilmington, North Carolina 28402-2849

### Emergency Telephone Number

**Company Phone Number** 910-397-0781  
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1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

### Classification

|  |            |
|--|------------|
| 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 |

### Signal Word

**Danger**

### Hazard Statements

Causes skin irritation  
Causes severe eye irritation  
May cause an allergic skin reaction  
May cause respiratory irritation. May cause drowsiness or dizziness

Highly flammable liquid and vapor

**Appearance** Colorless or pink liquid**Physical State** Liquid**Odor** Characteristic**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Contaminated work clothing should 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 equipment  
 Use only non-sparking tools  
 Take precautionary measures against static discharge  
 Keep cool

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Get medical attention if irritation occurs  
 If skin irritation or rash occurs: Get medical advice/attention  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Call a POISON CENTER or doctor/physician if you feel unwell  
 In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

**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

**Other Hazards**

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

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name                         | CAS No         | Weight-%       |
|---------------------------------------|----------------|----------------|
| Methyl Methacrylate Monomer           | 80-62-6        | >90%           |
| <b>Ethylene Glycol Dimethacrylate</b> | <b>97-90-5</b> | <b>2.5-10%</b> |
| N, N-Dimethyl-p-toluidine             | 99-97-8        | <1%            |

Product contains a proprietary mixture of ingredients. \*Unlisted ingredients are not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

#### 4. FIRST AID MEASURES

##### First Aid Measures

|                       |   |
|-----------------------|---|
| <b>General Advice</b> | Provide this SDS to medical personnel for treatment.  |
| <b>Eye Contact</b>    | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. |
| <b>Skin Contact</b>   | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Seek medical attention if irritation develops.  |
| <b>Inhalation</b>     | Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.  |
| <b>Ingestion</b>      | Rinse mouth. Do NOT induce vomiting. Seek medical advice.   |

##### Most Important Symptoms and Effects, both Acute and Delayed

|                 |   |
|-----------------|---|
| <b>Symptoms</b> | Overexposure by inhalation may cause CNS depression- drowsiness, dizziness, confusion or loss of coordination. May cause skin and eye irritation. May cause allergic skin reaction. Will cause gastrointestinal tract irritation. |
|-----------------|---|

##### Indication of any Immediate Medical Attention and Special Treatment Needed

|                           |  |
|---------------------------|--|
| <b>Note to Physicians</b> | Treat symptomatically. Can cause allergic response in susceptible or hypersensitive individuals upon repeated or prolonged exposure. |
|---------------------------|--|

#### 5. FIRE-FIGHTING MEASURES

##### Suitable Extinguishing Media

Foam, Dry chemical, Carbon dioxide (CO<sub>2</sub>).

**Unsuitable Extinguishing Media** Water jet.

##### Specific Hazards Arising from the Chemical

Vapors may travel to source of ignition and flash back.

|  |  |
|--|--|
| <b>Sensitivity to Static Discharge</b> | Take precautionary measures against static discharge. Flammable mixtures of this product are readily ignited even by static discharge. |
|--|--|

##### 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

|                                  |   |
|----------------------------------|---|
| <b>Personal Precautions</b>      | Wear protective clothing as described in Section 8 of this safety data sheet. Remove all sources of ignition. The wet contaminated surface may be slippery.   |
| <b>Environmental Precautions</b> | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). See Section 12 for additional ecological information. |

##### Methods and Material for Containment and Cleaning Up

|                                |  |
|--------------------------------|--|
| <b>Methods for Containment</b> | Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite).   |
| <b>Methods for Cleaning Up</b> | Use clean non-sparking tools to collect absorbed material. Sweep up absorbed material and shovel into suitable containers for disposal. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations. For waste disposal, see section 13 of the SDS. Wash spill area with a mild detergent. |

## 7. HANDLING AND STORAGE

### Precautions for Safe Handling

|                                |  |
|--------------------------------|--|
| <b>Advice on Safe Handling</b> | Handle in accordance with good industrial hygiene and safety practice. Wear appropriate personal protective equipment. Wash face, hands, and any exposed skin thoroughly after handling. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Take precautionary measures against static discharges. Ground container and transfer equipment to eliminate static electric sparks. Use spark-proof tools and explosion-proof equipment. Avoid breathing vapors or mists. Contaminated work clothing should not be allowed out of the workplace. Use only in well-ventilated areas. Keep containers closed when not in use. Keep cool. |
|--------------------------------|--|

### Conditions for Safe Storage, Including any Incompatibilities

|                               |   |
|-------------------------------|---|
| <b>Storage Conditions</b>     | Keep container tightly closed and store in a cool, dry and well-ventilated place. Store between 16°-26°C (69°-79°F). Store locked up. Protect from damp. Store away from heat and incompatible materials. |
| <b>Incompatible Materials</b> | Organic peroxides, Reducing agent, Metallic Redox systems, Strong oxidizing agents.   |

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

| Chemical Name               | ACGIH TLV                    | OSHA PEL  | NIOSH IDLH   |
|-----------------------------|------------------------------|---|--|
| Methyl Methacrylate Monomer | STEL: 100 ppm<br>TWA: 50 ppm | TWA: 100 ppm TWA: 410 mg/m <sup>3</sup> (vacated) TWA: 100 ppm (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

|                             |                               |
|-----------------------------|-------------------------------|
| <b>Engineering Controls</b> | Good ventilation is required. |
|-----------------------------|-------------------------------|

### Individual Protection Measures, such as Personal Protective Equipment

|                                       |   |
|---------------------------------------|---|
| <b>Eye/Face Protection</b>            | Splash goggles or safety glasses.   |
| <b>Skin and Body Protection</b>       | Polyethylene / Nitrile gloves. Do not use cotton gloves. Polyethylene apron is recommended.   |
| <b>Respiratory Protection</b>         | Ensure adequate ventilation, especially in confined areas. Use NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists. |
| <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>Appearance</b>              | Colorless or pink liquid | <b>Odor</b>             | Characteristic |
| <b>Color</b>                   | Colorless or pink        | <b>Odor Threshold</b>   | Not determined |
| <b>Property</b>                | <b>Values</b>            | <b>Remarks • Method</b> |                |
| pH                             | Not determined           |                         |                |
| Melting Point/Freezing Point   | Not determined           |                         |                |
| Boiling Point/Boiling Range    | 100 °C / 212 °F          | (at 760 mm Hg)          |                |
| Flash Point Evaporation        | 8 °C / 46.4 °F           | Tag Closed Cup          |                |
| Rate Flammability (Solid, Gas) | +1                       | (butyl acetate = 1)     |                |
| Upper Flammability Limits      | Not determined           |                         |                |
| Lower Flammability Limit       | 12%                      |                         |                |
| Vapor Pressure                 | 47hPa @ 20°C             |                         |                |
| Vapor Density                  | +1                       | (Air=1)                 |                |
| Specific Gravity               | -1                       | (1=Water)               |                |
| Water Solubility               | Slightly soluble         |                         |                |
| Solubility in Other Solvents   | Not determined           |                         |                |
| Partition Coefficient          | Not determined           |                         |                |
| Autoignition Temperature       | 430°C / 806°F            |                         |                |
| Decomposition Temperature      | Not determined           |                         |                |
| Kinematic Viscosity            | Not determined           |                         |                |
| Dynamic Viscosity              | Not determined           |                         |                |
| Explosive Properties           | Not determined           |                         |                |
| Oxidizing Properties           | Not determined           |                         |                |

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

Prolonged exposure to elevated temperatures which can cause premature polymerization and release methyl methacrylate vapors.

#### **Hazardous Polymerization**

Hazardous polymerization may occur.

### Conditions to Avoid

Temperatures >35°C (95°).

### Incompatible Materials

Organic peroxides, Reducing agent, Metallic Redox systems, Strong oxidizing agents.

### Hazardous Decomposition Products

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Information on Likely Routes of Exposure

#### **Product Information**

#### **Eye Contact**

Causes serious eye irritation.

#### **Skin Contact**

Causes skin irritation. May cause allergic skin reaction.

#### **Inhalation**

May cause irritation to the mucous membranes and upper respiratory tract.

**Ingestion**

Ingestion may cause irritation to mucous membranes.

**Component Information**

| Chemical Name               | Oral LD50            | Dermal LD50         | Inhalation LC50                              |
|-----------------------------|----------------------|---------------------|--|
| Methyl Methacrylate Monomer | = 7872 mg/kg ( Rat ) | > 5 g/kg ( Rabbit ) | = 4632 ppm ( Rat ) 4 h = 400 ppm ( Rat ) 1 h |

**Information on Physical, Chemical and Toxicological Effects****Symptoms**

Please see section 4 of this SDS for symptoms.

**Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure****Sensitization**

May cause an allergic skin reaction.

**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

| Chemical Name               | ACGIH | IARC    | NTP | OSHA |
|-----------------------------|-------|---------|-----|------|
| Methyl Methacrylate Monomer |       | Group 3 |     |      |

*IARC (International Agency for Research on Cancer)**Group 3 IARC components are "not classifiable as human carcinogens"***STOT - Single Exposure**

May cause respiratory irritation. May cause drowsiness or dizziness.

**Numerical Measures of Toxicity**

Not determined

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

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

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

**Persistence and Degradability**

Not determined

**Bioaccumulation**

Not determined

**Mobility**

| Chemical Name               | Partition Coefficient |
|-----------------------------|-----------------------|
| Methyl Methacrylate Monomer | 0.7                   |

**Other Adverse Effects**

Not determined

**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**

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

| Chemical Name               | RCRA | RCRA - Basis for Listing       | RCRA - D Series Wastes | RCRA - U Series Wastes |
|-----------------------------|------|--------------------------------|------------------------|------------------------|
| Methyl Methacrylate Monomer | U162 | Included in waste stream: F039 |                        | U162                   |

| Chemical Name               | California Hazardous Waste Status |
|-----------------------------|-----------------------------------|
| Methyl Methacrylate Monomer | Toxic<br>Ignitable                |

**14. TRANSPORT INFORMATION****Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**

Consumer Commodity

**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

**15. REGULATORY INFORMATION****International Inventories**

Not Determined

**Legend:***TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL - 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***US Federal Regulations****CERCLA**

| Chemical Name               | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ)                  |
|-----------------------------|--------------------------|----------------|---|
| Methyl Methacrylate Monomer | 1000 lb                  |                | RQ 1000 lb final RQ<br>RQ 454 kg final RQ |

**SARA 313**

| Chemical Name                 | CAS No | Weight-%    | SARA 313 - Threshold Values % |
|-------------------------------|--------|-------------|-------------------------------|
| Methyl Methacrylate Monomer - |        | Proprietary | 1.0                           |

**CWA (Clean Water Act)**

| Component                                      | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|--|-----------------------------|------------------------|---------------------------|----------------------------|
| Methyl Methacrylate Monomer<br>( Proprietary ) | 1000 lb                     |                        |                           | X                          |

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

| Chemical Name               | New Jersey | Massachusetts | Pennsylvania |
|-----------------------------|------------|---------------|--------------|
| Methyl Methacrylate Monomer | X          | X             | X            |

**16. OTHER INFORMATION****NFPA****Health Hazards**

Not determined

**Flammability**

Not determined

**Instability**

Not determined

**Special Hazards**

Not determined

**HMIS****Health Hazards**

Not determined

**Flammability**

Not determined

**Physical Hazards**

Not determined

**Personal Protection**

Not determined

**Issue Date**

03-Jan-2011

**Revision Date**

31-May-2016

**Revision Note**

New format

**Disclaimer**

The information provided in this 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**