

**KIT - SAFETY DATA SHEET**Product identifier used on the label:

Kit Name: **MA8110 Adhesive**  
Stock No.: 81100

Other means of identification:Recommended use of the chemical and restrictions on use:Chemical manufacturer address and telephone number:

Manufacturer Name: ITW Performance Polymers  
Address: 30 Endicott Street  
Danvers, MA 01923

**Component list**

Component A	MA8110/8120 Adhesive
Component B	MA8110 Gray Activator
Kit SDS Revision Date	01/28/2016

**Component A - SDS****SECTION 1 : IDENTIFICATION**Product identifier used on the label:

Product Name: **MA8110/8120 Adhesive**

Other means of identification:

Synonyms: None.

Recommended use of the chemical and restrictions on use:

Product Use/Restriction: Not applicable.

Chemical manufacturer address and telephone number:

Manufacturer Name: ITW  
Address: 30 Endicott Street  
Danvers, MA 01923  
General Phone Number: (978) 777-1100

Emergency phone number:

Emergency Phone Number: (800) 424-9300  
CHEMTREC: For emergencies in the US, call CHEMTREC: 800-424-9300

**SECTION 2 : HAZARD(S) IDENTIFICATION**Classification of the chemical in accordance with CFR 1910.1200(d)(f):

## GHS Pictograms:



Signal Word: DANGER.

GHS Class: Flammable Liquid, Category 2.  
Serious Eye Damage, category 1.  
Skin corrosion, category 1.  
Skin Sensitization, category 1.  
Specific Target Organ Toxicity - STOT, Single Exposure SE, Category 3.

Hazard Statements: H225 - Highly flammable liquid and vapor.  
H318 - Causes serious eye damage.  
H314 - Causes severe skin burns and eye damage.  
H317 - May cause an allergic skin reaction.  
H335 - May cause respiratory irritation.

**Precautionary Statements:**

P210 - Keep away from heat/sparks/open flames/hotsurfaces. — No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground/Bond container and receiving equipment.  
P241 - Use explosion-proof electrical/ventilating/lighting equipment.  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.  
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 - Wash hands thoroughly after handling.  
P271 - Use only outdoors or in a well-ventilated area.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do not induce vomiting.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTER or doctor/physician.  
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.  
P321 - Specific treatment (see ... on this label).  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P363 - Wash contaminated clothing before reuse.  
P370+P378 - In case of fire: Use dry chemical, carbon dioxide to extinguish small fires. Use water for large fires.  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P403+P235 - Store in a well-ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

Hazards not otherwise classified that have been identified during the classification process:

**Route of Exposure:** Eyes. Skin. Inhalation. Ingestion.

**Potential Health Effects:**

**Eye:** Can cause moderate irritation, burning sensation, tearing, redness, and swelling. Overexposure may cause lacrimation, conjunctivitis, corneal damage and permanent injury.

**Skin:** Can cause skin irritation; itching, redness, rashes, hives, burning, and swelling. Allergic reactions are possible. May cause skin sensitization, an allergic reaction, which becomes evident on reexposure to this material.

**Inhalation:** Respiratory tract irritant. High concentration may cause dizziness, headache, and anesthetic effects.

**Ingestion:** Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.

**Chronic Health Effects:** Prolonged skin contact may lead to burning associated with severe reddening, swelling, and possible tissue destruction.

**Signs/Symptoms:** Overexposure can cause headaches, dizziness, nausea, and vomiting.

**Target Organs:** Eyes. Skin. Respiratory system. Digestive system. Liver. Kidney. Olfactory Function.

**Aggravation of Pre-Existing Conditions:** Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product.

**SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS**

Mixtures:

<b>Chemical Name</b>	<b>CAS#</b>	<b>Ingredient Percent</b>	<b>EC Num.</b>
Polymethyl methacrylate	9011-87-4	5 - 10 by weight	
Methyl Methacrylate Monomer	80-62-6	43 - 54 by weight	201-297-1
Methacrylic acid	79-41-4	1 - 5 by weight	201-204-4
2-Propenoic acid, 2-methyl-, dodecyl ester	142-90-5	1 - 5 by weight	205-570-6
t-Butyl Perbenzoate	614-45-9	1 - 5 by weight	210-382-2
Methacryloyloxyethyl acid phosphate	52628-03-2	1 - 5 by weight	258-053-2
Methylmethacrylate-Butadiene-Styrene Acrylic Copolymer	Proprietary	1 - 5 by weight	
Styrene-Butadiene-Styrene Polymer	9003-55-8	1 - 5 by weight	
Diisodecyl Adipate	27178-16-1	1 - 5 by weight	248-299-9
Maleic Acid	110-16-7	1 - 5 by weight	203-742-5
2-Propenoic acid, 2-methyl-, tetradecyl ester	2549-53-3	1 - 5 by weight	219-835-9

**SECTION 4 : FIRST AID MEASURES**

Description of necessary measures:

<b>Eye Contact:</b>	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.
<b>Skin Contact:</b>	Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.
<b>Inhalation:</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
<b>Ingestion:</b>	If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

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## SECTION 5 : FIRE FIGHTING MEASURES

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Suitable and unsuitable extinguishing media:

<b>Suitable Extinguishing Media:</b>	Use carbon dioxide (CO2) or dry chemical when fighting fires involving this material.
<b>Unsuitable extinguishing media:</b>	Water may cause frothing.
<b>Unusual Fire Hazards:</b>	Sealed containers at elevated temperatures may rupture explosively and spread fire due to polymerization.

Special protective equipment and precautions for fire-fighters:

<b>Protective Equipment:</b>	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
<b>Fire Fighting Instructions:</b>	Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water. Vapors can flow along surfaces to distant ignition sources and flash back.

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## SECTION 6 : ACCIDENTAL RELEASE MEASURES

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Personal precautions, protective equipment and emergency procedures:

<b>Personal Precautions:</b>	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.
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Environmental precautions:

<b>Environmental Precautions:</b>	Avoid runoff into storm sewers, ditches, and waterways.
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Methods and materials for containment and cleaning up:

<b>Spill Cleanup Measures:</b>	Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Collect spill with a non-sparking tool. Place into a suitable container for disposal. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush spill area with soap and water to remove trace residue. Flammable, eliminate ignition sources. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to distant ignition sources and flash back. Ventilate area. Use proper personal protective equipment as listed in Section 8.
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Reference to other sections:

<b>Other Precautions:</b>	Pump or shovel to storage/salvage vessels. Add inhibitor to prevent polymerization.
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## SECTION 7 : HANDLING and STORAGE

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Precautions for safe handling:

<b>Handling:</b>	Use with adequate ventilation. Avoid breathing vapor, aerosol or mist. Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures. Do not reuse containers without proper cleaning or reconditioning.
<b>Hygiene Practices:</b>	Wash thoroughly after handling.
<b>Special Handling Procedures:</b>	Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product. Hazardous liquid or vapor residue may remain in emptied container. Do not reuse, heat, burn, pressurize, cut, weld, braze, solder, drill, grind, expose to sparks, flame, or ignition sources of empty containers without proper commercial cleaning or reconditioning.

Conditions for safe storage, including any incompatibilities:

<b>Storage:</b>	Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use.
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## SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

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EXPOSURE GUIDELINES:

Methyl Methacrylate Monomer :

Guideline ACGIH: TLV-STEL: 100 ppm  
Sensitizer.  
TLV-TWA: 50 ppm  
Guideline OSHA: PEL-TWA: 100 ppm  
**Methacrylic acid :**  
Guideline ACGIH: TLV-TWA: 20 ppm

Appropriate engineering controls:

**Engineering Controls:** Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Individual protection measures:

**Eye/Face Protection:** Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

**Skin Protection Description:** Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.

**Respiratory Protection:** A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

**Other Protective:** Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station.

**Notes :** Only established PEL and TLV values for the ingredients are listed.

## SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

**Physical State Appearance:** Paste.  
**Color:** Tan/off-white  
**Odor:** Not determined.  
**Odor Threshold:** Not determined.  
**Boiling Point:** 213°F (100.5°C)  
**Melting Point:** Not determined.  
**Density:** 7.93 lbs/gal  
**Solubility:** Not determined.  
**Vapor Density:** > 1 (air = 1)  
**Vapor Pressure:** 28 mmHg @68°F  
**Percent Volatile:** Not determined.  
**Evaporation Rate:** 3 (butyl acetate = 1)  
**pH:** 5  
**Flash Point:** 50°F (10°C)  
**Flash Point Method:** Tag closed cup. (TCC)  
**Lower Flammable/Explosive Limit:** 2.1%  
**Upper Flammable/Explosive Limit:** 12.5%  
**Auto Ignition Temperature:** Not determined.  
**VOC Content:** <0.2 mixed.  
**9.2. Other information:**  
**Percent Solids by Weight** Not determined.

## SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:

**Chemical Stability:** Unstable.

Possibility of hazardous reactions:

**Hazardous Polymerization:** Polymerization may occur under certain conditions.

Conditions To Avoid:

**Conditions to Avoid:** Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Oxygen-free atmospheres or inert gas blanketing. Freezing conditions. Material can soften paint and rubber.

Incompatible Materials:

**Incompatible Materials:** Oxidizing agents (eg peroxides, nitrates), reducing agents, acids, bases, azo-compounds, catalytic metals (eg copper, iron), halogens. Free radical initiators. Oxygen scavengers.

## SECTION 11 : TOXICOLOGICAL INFORMATION

### TOXICOLOGICAL INFORMATION:

#### Methyl Methacrylate Monomer :

**Eye:** Administration into the eye - Rabbit Standard Draize test: 150 mg [Not reported.] (RTECS)

**Skin:** Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: >5 gm/kg [Skin and Appendages - Dermatitis, other(After systemic exposure) ] (RTECS)

**Inhalation:** Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 78000 mg/m<sup>3</sup>/4H [Details of toxic effects not reported other than lethal dose value] (RTECS)

**Ingestion:** Oral - Rat LD50 - Lethal dose, 50 percent kill: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory depression] (RTECS)

#### Methacrylic acid :

**Skin:** Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: 500 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

**Ingestion:** Oral - Rat LD50 - Lethal dose, 50 percent kill: 1060 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

#### 2-Propenoic acid, 2-methyl-, dodecyl ester :

**Eye:** Administration into the eye - Rabbit Standard Draize test: 500 mg/24H [Mild] (RTECS)

#### t-Butyl Perbenzoate :

**Eye:** Administration into the eye - Rabbit Rinsed with water: 100 mg/1M [Mild]  
Administration into the eye - Rabbit Standard Draize test: 500 mg/24H [Mild]  
Administration into the eye - Rabbit Standard Draize test: 0.05 mL [Not reported.] (RTECS)

**Ingestion:** Oral - Rat LD50 - Lethal dose, 50 percent kill: 1012 mg/kg [Details of toxic effects not reported other than lethal dose value]  
Oral - Rat LD50 - Lethal dose, 50 percent kill: 1012 mg/kg [Lungs, Thorax, or Respiration - Respiratory depression Gastrointestinal - Necrotic changes Liver - Other changes] (RTECS)

#### Styrene-Butadiene-Styrene Polymer :

**Eye:** Administration into the eye - Rabbit Standard Draize test: 500 mg/24H [Mild] (RTECS)

#### Diisodecyl Adipate :

**Ingestion:** Oral - Rat LD50 - Lethal dose, 50 percent kill: 20.5 gm/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

#### Maleic Acid :

**Eye:** Administration into the eye - Rabbit Standard Draize test: 1 %/2M [Severe] (RTECS)

## SECTION 12 : ECOLOGICAL INFORMATION

### Ecotoxicity:

**Ecotoxicity:** No ecotoxicity data was found for the product.

**Environmental Fate:** No environmental information found for this product.

## SECTION 13 : DISPOSAL CONSIDERATIONS

### Description of waste:

**Waste Disposal:** Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

**RCRA Number:** D001

**Important Disposal Information:** DANGER! Rags, steel wool and waste soaked with this product may spontaneously catch fire if improperly discarded or stored. To avoid a spontaneous combustion fire, immediately after use, place rags, steel wool or waste in a sealed, water-filled, metal container.

## SECTION 14 : TRANSPORT INFORMATION

**DOT Shipping Name:** Refer to Bill of Lading

**DOT UN Number:** Refer to Bill of Lading

**IATA Shipping Name:** Refer to Bill of Lading

**IATA UN Number:** Refer to Bill of Lading

IMDG UN Number : Refer to Bill of Lading  
IMDG Shipping Name : Refer to Bill of Lading

## SECTION 15 : REGULATORY INFORMATION

### Safety, health and environmental regulations specific for the product:

#### **Polymethyl methacrylate :**

TSCA Inventory Status: Listed  
Canada DSL: Listed

#### **Methyl Methacrylate Monomer :**

TSCA Inventory Status: Listed  
Section 313: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.  
Canada DSL: Listed  
EC Number: 201-297-1

#### **Methacrylic acid :**

TSCA Inventory Status: Listed  
Canada DSL: Listed  
EC Number: 201-204-4

#### **2-Propenoic acid, 2-methyl-, dodecyl ester :**

TSCA Inventory Status: Listed  
Canada DSL: Listed  
EC Number: 205-570-6

#### **t-Butyl Perbenzoate :**

TSCA Inventory Status: Listed  
Canada DSL: Listed  
EC Number: 210-382-2

#### **Methacryloyloxyethyl acid phosphate :**

TSCA Inventory Status: Listed  
Canada DSL: Listed  
EC Number: 258-053-2

#### **Styrene-Butadiene-Styrene Polymer :**

TSCA Inventory Status: Listed  
Canada DSL: Listed

#### **Diisodecyl Adipate :**

TSCA Inventory Status: Listed  
Canada DSL: Listed  
EC Number: 248-299-9

#### **Maleic Acid :**

TSCA Inventory Status: Listed  
Canada DSL: Listed  
EC Number: 203-742-5

#### **2-Propenoic acid, 2-methyl-, tetradecyl ester :**

TSCA Inventory Status: Listed  
Canada DSL: Listed  
EC Number: 219-835-9

Canadian Regulations. WHMIS Hazard Class(es): B2; D2B  
All components of this product are on the Canadian Domestic Substances List.

WHMIS Pictograms:



## SECTION 16 : ADDITIONAL INFORMATION

### HMIS Ratings:

HMIS Health Hazard: 2\*  
HMIS Fire Hazard: 3  
HMIS Reactivity: 2  
HMIS Personal Protection: X

Health Hazard	2*
Fire Hazard	3
Reactivity	2
Personal Protection	X

\* Chronic Health Effects

SDS Creation Date: March 19, 2012  
SDS Revision Date: January 27, 2016  
SDS Revision Notes: Name Change  
SDS Format: In accordance to OSHA GHS 1910.1200  
SDS Author: Actio Corporation

**Disclaimer:** The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. ITW Performance Polymers MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the ITW Performance Polymers product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a ITW Performance Polymers product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the ITW Performance Polymers product to determine whether it is fit for a particular purpose and suitable for user's method of use or application. ITW Performance Polymers provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, ITW Performance Polymers makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the MSDS available directly from ITW Performance Polymers.

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## Component B - SDS

### SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name: **MA8110 Gray Activator**

Other means of identification:

Synonyms: None.

Recommended use of the chemical and restrictions on use:

Product Use/Restriction: Not applicable.

Chemical manufacturer address and telephone number:

Manufacturer Name: ITW  
Address: 30 Endicott Street  
Danvers, MA 01923  
General Phone Number: (978) 777-1100

Emergency phone number:

Emergency Phone Number: (800) 424-9300  
CHEMTREC: For emergencies in the US, call CHEMTREC: 800-424-9300

### SECTION 2 : HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with CFR 1910.1200(d)(f):

GHS Pictograms:



Signal Word: DANGER.

GHS Class: Flammable Liquid. Category 2.  
Eye Irritation. Category 2.  
Skin Irritation. Category 2.  
Skin Sensitization. category 1.  
Specific Target Organ Toxicity - STOT, Single Exposure SE. Category 3.

Hazard Statements: H225 - Highly flammable liquid and vapor.  
H319 - Causes serious eye irritation.  
H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.  
H335 - May cause respiratory irritation.

**Precautionary Statements:**

- P210 - Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
- P233 - Keep container tightly closed.
- P240 - Ground/Bond container and receiving equipment.
- 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/vapours/spray.
- P264 - Wash hands thoroughly after handling.
- P271 - Use only outdoors or in a well-ventilated area.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P352 - IF ON SKIN: Wash with plenty of water.
- P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
- P321 - Specific treatment (see ... on this label).
- P332+P313 - If skin irritation occurs: Get medical advice/attention.
- P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 - If eye irritation persists: Get medical advice/attention.
- P362+P364 - Take off contaminated clothing and wash it before reuse.
- P370+P378 - In case of fire: Use dry chemical, carbon dioxide to extinguish small fires. Use water for large fires.
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
- P403+P235 - Store in a well-ventilated place. Keep cool.
- P405 - Store locked up.
- P501 - Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

Hazards not otherwise classified that have been identified during the classification process:

- Route of Exposure:** Eyes. Skin. Inhalation. Ingestion.
- Potential Health Effects:**
- Eye:** Can cause moderate irritation, burning sensation, tearing, redness, and swelling. Overexposure may cause lacrimation, conjunctivitis, corneal damage and permanent injury.
  - Skin:** Can cause skin irritation; itching, redness, rashes, hives, burning, and swelling. Allergic reactions are possible. May cause skin sensitization, an allergic reaction, which becomes evident on reexposure to this material.
  - Inhalation:** Respiratory tract irritant. High concentration may cause dizziness, headache, and anesthetic effects.
  - Ingestion:** Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.
- Chronic Health Effects:** Prolonged skin contact may lead to burning associated with severe reddening, swelling, and possible tissue destruction.
- Signs/Symptoms:** Overexposure can cause headaches, dizziness, nausea, and vomiting.
- Target Organs:** Eyes. Skin. Respiratory system. Digestive system. Liver. Kidney. Olfactory Function.
- Aggravation of Pre-Existing Conditions:** Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product.

**SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS**

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.
MBS polymer	Proprietary	5 - 10 by weight	
Methyl Methacrylate Monomer	80-62-6	63 - 77 by weight	201-297-1
Acrylic-butadiene-styrene terpolymer	25852-37-3	5 - 10 by weight	
Methylmethacrylate/Styrene/Acrylic Copolymer	Trade Secret	1 - 5 by weight	
3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyridine	34562-31-7	1 - 5 by weight	252-091-3
Bisphenol A (EO)3 Dimethacrylate	41637-38-1	1 - 5 by weight	
Styrene/Acrylonitrile Copolymer	Proprietary	1 - 5 by weight	
Phenol, 2,4-bis(1,1,-dimethylethyl)-, phosphite	31570-04-4	1 - 5 by weight	250-709-6

**SECTION 4 : FIRST AID MEASURES**

Description of necessary measures:

- Eye Contact:** Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.
- Skin Contact:** Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.



<b>Inhalation:</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
<b>Ingestion:</b>	If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

## SECTION 5 : FIRE FIGHTING MEASURES

### Suitable and unsuitable extinguishing media:

<b>Suitable Extinguishing Media:</b>	Use carbon dioxide (CO2) or dry chemical when fighting fires involving this material.
<b>Unsuitable extinguishing media:</b>	Water may cause frothing.
<b>Unusual Fire Hazards:</b>	Sealed containers at elevated temperatures may rupture explosively and spread fire due to polymerization.

### Special protective equipment and precautions for fire-fighters:

<b>Protective Equipment:</b>	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
<b>Fire Fighting Instructions:</b>	Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water. Vapors can flow along surfaces to distant ignition sources and flash back.

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

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

<b>Personal Precautions:</b>	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.
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### Environmental precautions:

<b>Environmental Precautions:</b>	Avoid runoff into storm sewers, ditches, and waterways.
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### Methods and materials for containment and cleaning up:

<b>Spill Cleanup Measures:</b>	Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Collect spill with a non-sparking tool. Place into a suitable container for disposal. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush spill area with soap and water to remove trace residue. Flammable, eliminate ignition sources. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to distant ignition sources and flash back. Ventilate area. Use proper personal protective equipment as listed in Section 8.
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### Reference to other sections:

<b>Other Precautions:</b>	Pump or shovel to storage/salvage vessels. Add inhibitor to prevent polymerization.
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## SECTION 7 : HANDLING and STORAGE

### Precautions for safe handling:

<b>Handling:</b>	Use with adequate ventilation. Avoid breathing vapor, aerosol or mist. Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures. Do not reuse containers without proper cleaning or reconditioning.
<b>Hygiene Practices:</b>	Wash thoroughly after handling.
<b>Special Handling Procedures:</b>	Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product. Hazardous liquid or vapor residue may remain in emptied container. Do not reuse, heat, burn, pressurize, cut, weld, braze, solder, drill, grind, expose to sparks, flame, or ignition sources of empty containers without proper commercial cleaning or reconditioning.

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

<b>Storage:</b>	Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use.
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## SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

### EXPOSURE GUIDELINES:

#### Methyl Methacrylate Monomer :

<b>Guideline ACGIH:</b>	TLV-STEL: 100 ppm Sensitizer. TLV-TWA: 50 ppm
<b>Guideline OSHA:</b>	PEL-TWA: 100 ppm

### Appropriate engineering controls:

**Engineering Controls:** Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Individual protection measures:

**Eye/Face Protection:** Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

**Skin Protection Description:** Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.

**Respiratory Protection:** A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

**Other Protective:** Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station.

**Notes :** Only established PEL and TLV values for the ingredients are listed.

## SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

**Physical State Appearance:** Paste.

**Color:** Gray

**Odor:** Not determined.

**Odor Threshold:** Not determined.

**Boiling Point:** Not determined.

**Melting Point:** Not determined.

**Density:** 7.96 lbs/gal

**Solubility:** Not determined.

**Vapor Density:** Not determined.

**Vapor Pressure:** Not determined.

**Percent Volatile:** Not determined.

**Evaporation Rate:** Not determined.

**pH:** Not determined.

**Flash Point:** 50°F (10°C)

**Flash Point Method:** Tag closed cup. (TCC)

**Lower Flammable/Explosive Limit:** 2.1%

**Upper Flammable/Explosive Limit:** 12.5%

**Auto Ignition Temperature:** Not determined.

**VOC Content:** <0.2 mixed.

9.2. Other information:

**Percent Solids by Weight** Not determined.

## SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:

**Chemical Stability:** Unstable.

Possibility of hazardous reactions:

**Hazardous Polymerization:** Polymerization may occur under certain conditions.

Conditions To Avoid:

**Conditions to Avoid:** Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Oxygen-free atmospheres or inert gas blanketing. Freezing conditions. Material can soften paint and rubber.

Incompatible Materials:

**Incompatible Materials:** Oxidizing agents (eg peroxides, nitrates), reducing agents, acids, bases, azo-compounds, catalytic metals (eg copper, iron), halogens. Free radical initiators. Oxygen scavengers.

## SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

**Methyl Methacrylate Monomer :**

**Eye:** Administration into the eye - Rabbit Standard Draize test: 150 mg [Not reported.] (RTECS)

**Skin:** Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: >5 gm/kg [Skin and Appendages - Dermatitis, other(After systemic exposure) ] (RTECS)

**Inhalation:** Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 78000 mg/m3/4H [Details of toxic effects not reported other than lethal dose value] (RTECS)

**Ingestion:** Oral - Rat LD50 - Lethal dose, 50 percent kill: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory depression] (RTECS)

**Phenol, 2,4-bis(1,1-dimethylethyl)-, phosphite :**

**Skin:** Administration onto the skin - Rat LD50 - Lethal dose, 50 percent kill: >2000 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

**Ingestion:** Oral - Rat LD50 - Lethal dose, 50 percent kill: >6000 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

**SECTION 12 : ECOLOGICAL INFORMATION**

Ecotoxicity:

**Ecotoxicity:** No ecotoxicity data was found for the product.

**Environmental Fate:** No environmental information found for this product.

**SECTION 13 : DISPOSAL CONSIDERATIONS**

Description of waste:

**Waste Disposal:** Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

**RCRA Number:** D001

**Important Disposal Information:** DANGER! Rags, steel wool and waste soaked with this product may spontaneously catch fire if improperly discarded or stored. To avoid a spontaneous combustion fire, immediately after use, place rags, steel wool or waste in a sealed, water-filled, metal container.

**SECTION 14 : TRANSPORT INFORMATION**

**DOT Shipping Name:** Refer to Bill of Lading

**DOT UN Number:** Refer to Bill of Lading

**IATA Shipping Name:** Refer to Bill of Lading

**IATA UN Number:** Refer to Bill of Lading

**IMDG UN Number :** Refer to Bill of Lading

**IMDG Shipping Name :** Refer to Bill of Lading

**SECTION 15 : REGULATORY INFORMATION**

Safety, health and environmental regulations specific for the product:

**Methyl Methacrylate Monomer :**

**TSCA Inventory Status:** Listed

**Section 313:** EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.

**Canada DSL:** Listed

**EC Number:** 201-297-1

**Acrylic-butadiene-styrene terpolymer :**

**TSCA Inventory Status:** Listed

**Canada DSL:** Listed

**3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyridine :**

**TSCA Inventory Status:** Listed

**Canada DSL:** Listed

**EC Number:** 252-091-3

**Bisphenol A (EO)3 Dimethacrylate :**

TSCA Inventory Status: Listed  
Canada DSL: Listed

**Phenol, 2,4-bis(1,1-dimethylethyl)-, phosphite :**

TSCA Inventory Status: Listed

Canada DSL: Listed

EC Number: 250-709-6

Canadian Regulations. WHMIS Hazard Class(es): B2; D2B  
All components of this product are on the Canadian Domestic Substances List.

WHMIS Pictograms:



**SECTION 16 : ADDITIONAL INFORMATION**

**HMIS Ratings:**

HMIS Health Hazard: 2\*  
HMIS Fire Hazard: 3  
HMIS Reactivity: 2  
HMIS Personal Protection: X

<b>Health Hazard</b>	<b>2*</b>
<b>Fire Hazard</b>	<b>3</b>
<b>Reactivity</b>	<b>2</b>
<b>Personal Protection</b>	<b>X</b>

\* Chronic Health Effects

SDS Creation Date: January 28, 2016

SDS Revision Date: February 15, 2016

SDS Revision Notes: GHS Update

SDS Author: Actio Corporation

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