

MSDS Name **DEVCON® Zip Patch™**  
 Manufacturer Name ITW Devcon  
 Stock No.: 11500  
 Kit MSDS Revision Date 12/15/2009

<b>Components :</b>	
	ZIP PATCH ADHESIVE
	SPRAY ACTIVATOR
ITW Devcon Product Code : 11500	

**View MSDS :** [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [11](#) [12](#) [13](#) [14](#) [15](#) [16](#)

**SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION**

Product Name: **ZIP PATCH ADHESIVE**  
 Manufacturer Name: ITW Devcon  
 Address: 30 Endicott Street  
 Danvers, MA 01923  
 General Phone Number: (978) 777-1100  
 Emergency Phone Number: (800) 424-9300  
 CHEMTREC: For emergencies in the US, call CHEMTREC: 800-424-9300  
 Canutec: In Canada, call CANUTEC: (613) 996-6666 (call collect)  
 MSDS Revision Date: 12/15/2009

**HMS**

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

\* Chronic Health Effects:

**SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS#	Ingredient Percent
Methacrylic acid	79-41-4	5 - 10 by weight
Methyl Methacrylate Monomer	80-62-6	30 - 60 by weight
Chlorosulfonated polyethylene	68037-39-8	10 - 30 by weight
Trade secret.	N/A	10 - 30 by weight
Carbon tetrachloride	56-23-5	0.1 - 1 by weight

**SECTION 3 - HAZARDS IDENTIFICATION**

**Emergency Overview:** WARNING! Flammable. Harmful. Skin Sensitizer. Irritant.  
**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. May cause respiratory sensitization with asthma-like symptoms in susceptible individuals.  
**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 4 - FIRST AID 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.  
**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration or give

<b>Ingestion:</b>	oxygen by trained personnel. Seek immediate medical attention. If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.
<b>Other First Aid:</b>	Due to possible aspiration into the lungs, DO NOT induce vomiting if ingested. Provide a glass of water to dilute the material in the stomach. If vomiting occurs naturally, have the person lean forward to reduce the risk of aspiration.

## SECTION 5 - FIRE FIGHTING MEASURES

<b>Flammable Properties:</b>	Flammable. Fine mists explosive below flash point.
<b>Flash Point:</b>	50°F (10°C)
<b>Flash Point Method:</b>	Tag Closed Cup (TCC)
<b>Auto Ignition Temperature:</b>	Not determined.
<b>Lower Flammable/Explosive Limit:</b>	2.1%
<b>Upper Flammable/Explosive Limit:</b>	12.5%
<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.
<b>Extinguishing Media:</b>	Use carbon dioxide (CO <sub>2</sub> ) or dry chemical when fighting fires involving this material.
<b>Unsuitable Media:</b>	Water may cause frothing.
<b>Protective Equipment:</b>	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
<b>Unusual Fire Hazards:</b>	Sealed containers at elevated temperatures may rupture explosively and spread fire due to polymerization.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

<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.
<b>Personnel Precautions:</b>	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.
<b>Environmental Precautions:</b>	Avoid runoff into storm sewers, ditches, and waterways.
<b>Other Precautions:</b>	Pump or shovel to storage/salvage vessels. Add inhibitor to prevent polymerization.

## SECTION 7 - HANDLING and STORAGE

<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>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.
<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.
<b>Hygiene Practices:</b>	Wash thoroughly after handling.

## SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

<b>Engineering Controls:</b>	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.
<b>Eye/Face Protection:</b>	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.
<b>Skin Protection Description:</b>	Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.
<b>Respiratory Protection:</b>	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.

#### EXPOSURE GUIDELINES

##### Methacrylic acid :

**Guideline ACGIH:** 20 ppm  
TLV-TWA : 20 ppm

##### Methyl Methacrylate Monomer :

**Guideline ACGIH:** 50 ppm  
Sensitizer: Sen  
TLV-STEL: 100 ppm  
TLV-TWA: 50 ppm

**Guideline OSHA:** 100 ppm  
PEL-TWA: 100 ppm

##### Carbon tetrachloride :

**Guideline ACGIH:** 5 ppm  
Skin: yes  
TLV-STEL: 10 ppm  
TLV-TWA: 5 ppm

**Guideline OSHA:** 10 ppm  
PEL-Ceiling/Peak: 200 ppm Peak  
PEL-Ceiling/Peak: 25 ppm  
PEL-TWA: 10 ppm

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

#### SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

**Physical State Appearance:** Paste..  
**Color:** off-white.  
**Odor:** Fragrant.  
**Boiling Point:** 213°F (100.5°C)  
**Melting Point:** -54°F (-47.7°C)  
**Specific Gravity:** 0.93-1.05  
**Solubility:** Not determined.  
**Vapor Density:** > 1 (air = 1)  
**Vapor Pressure:** 28 mmHg @68°F  
**Percent Volatile:** Not determined.  
**Evaporation Rate:** 3 (butyl acetate = 1)  
**Molecular Formula:** Mixture  
**Molecular Weight:** Mixture  
**Flash Point:** 50°F (10°C)  
**Flash Point Method:** Tag Closed Cup (TCC)  
**Auto Ignition Temperature:** Not determined.  
**VOC Content:** <200 g/l mixed.  
**Percent Solids by Weight** Not determined.

#### SECTION 10 - STABILITY and REACTIVITY

**Chemical Stability:** Unstable.  
**Hazardous Polymerization:** Polymerization may occur under certain conditions.  
**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:** 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

##### Methacrylic acid :

**RTECS Number:** OZ2975000  
**Skin:** Unreported - Rat LD50: 1600 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Oral - Mouse LD50: 1250 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Intraperitoneal. - Mouse LD50: 48 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Unreported - Mouse LD50: 1250 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Oral - Rabbit LD50: 1200 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Administration onto the skin - Rabbit LD50: 500 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Administration onto the skin - Guinea pig LD50: 1 gm/kg [Details of toxic effects not reported other than lethal dose value.]  
Oral - Rat LD50: 1060 mg/kg [Details of toxic effects not reported other than lethal dose value.]

**Ingestion:** Oral - Mouse LD50: 1250 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Oral - Rat LD50: 1060 mg/kg [Details of toxic effects not reported other than lethal dose value.]

**Methyl Methacrylate Monomer :**

**RTECS Number:** OZ5075000

**Eye:** Eye - Rabbit Standard Draize Test.: 150 mg

**Skin:** Intraperitoneal. - Guinea pig LD50: 1890 mg/kg [Behavioral - Somnolence (general depressed activity)]  
Subcutaneous - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity)]  
Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory depression]  
Intraperitoneal. - Rat LD50: 1328 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Subcutaneous - Rat LD50: 7088 mg/kg [Behavioral - Somnolence (general depressed activity)]  
Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Intraperitoneal. - Mouse LD50: 945 mg/kg [Behavioral - Somnolence (general depressed activity)]  
Subcutaneous - Mouse LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity)]

Oral - Rabbit LD50: 8700 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Administration onto the skin - Rabbit LD50: >5 gm/kg [Skin and Appendages - Dermatitis, other (After systemic exposure)]  
Oral - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Gastrointestinal - Changes in structure or function of salivary glands]  
Administration onto the skin - Rabbit Open irritation test: 10 gm

**Inhalation:** Inhalation - Rat LC50: 78000 mg/m<sup>3</sup>/4H [Details of toxic effects not reported other than lethal dose value.]  
Inhalation - Mouse LC50: 18500 mg/m<sup>3</sup>/2H [Details of toxic effects not reported other than lethal dose value.]

**Ingestion:** Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory depression]  
Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than lethal dose value.]

**Carbon tetrachloride :**

**RTECS Number:** FG4900000

**Eye:** Eye - Rabbit Standard Draize Test.: 2200 ug/30S  
Eye - Rabbit Standard Draize Test.: 500 mg/24H

**Skin:** Oral - Rat LD50: 2350 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Administration onto the skin - Rat LD50: 5070 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Intraperitoneal. - Rat LD50: 1500 uL/kg [Details of toxic effects not reported other than lethal dose value.]  
Intraperitoneal. - Mouse LD50: 572 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Subcutaneous - Mouse LD50: 31 gm/kg [Behavioral - Sleep Behavioral - Ataxia]

Administration onto the skin - Rabbit LD50: >20 gm/kg [Details of toxic effects not reported other than lethal dose value.]  
Intravenous. - Rabbit LD50: 5840 mg/kg [Behavioral - Excitement Behavioral - Coma Lungs, Thorax, or Respiration - Dyspnea]  
Administration onto the skin - Guinea pig LD50: >9400 uL/kg [Details of toxic effects not reported other than lethal dose value.]

Oral - Mouse LD50: 7749 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Oral - Guinea pig LD50: 5760 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Oral - Rabbit LD50: 5760 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Intraperitoneal. - Mouse LD50: 572 mg/kg [Liver - Hepatitis (hepatocellular necrosis), zonal Liver - Liver function tests impaired]  
Intraperitoneal. - Mouse LD50: 1.25 mL/kg [Details of toxic effects not reported other than lethal dose value.]

**Inhalation:** Inhalation - Rat LC50: 8000 ppm/4H [Details of toxic effects not reported other than lethal dose value.]  
Inhalation - Mouse LC50: 9526 ppm/8H [Details of toxic effects not reported other than lethal dose value.]  
Inhalation - Mouse LC50: 34500 mg/m<sup>3</sup>/2H [Details of toxic effects not reported other than lethal dose value.]  
Inhalation - Rat LC50: 46000 mg/m<sup>3</sup>/6H [Details of toxic effects not reported other than lethal dose value.]

**Ingestion:** Oral - Rat LD50: 2350 mg/kg [Details of toxic effects not reported other than lethal dose value.]  
Oral - Mouse LD50: 7749 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Carcinogenicity:

IARC: Group 2B: Possibly carcinogenic to humans.  
NTP: Reasonably anticipated to be a human carcinogen.

## SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: No ecotoxicity data was found for the product.  
Environmental Fate: No environmental information found for this product.

## SECTION 13 - DISPOSAL CONSIDERATIONS

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, D019  
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: Adhesives  
DOT UN Number: 1133  
DOT Hazard Class: 3  
DOT Packing Group: II  
DOT Exemption: ORM-D Small quantity exemption

## SECTION 15 - REGULATORY INFORMATION

### Methacrylic acid :

TSCA Inventory Status: Listed  
Massachusetts: Listed: Massachusetts Oil and Hazardous List  
Pennsylvania: Listed  
Canada DSL: Listed

### Methyl Methacrylate Monomer :

TSCA Inventory Status: Listed  
SARA: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.  
New Jersey: Listed: NJ Hazardous List; Substance Number: 1277  
Massachusetts: Listed: Massachusetts Oil and Hazardous List  
Pennsylvania: Listed  
Canada DSL: Listed

### Chlorosulfonated polyethylene :

TSCA Inventory Status: Listed  
Canada DSL: Listed

### Carbon tetrachloride :

TSCA Inventory Status: Listed  
SARA: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.  
California PROP 65: Listed: cancer  
New Jersey: Listed: NJ Hazardous List; Substance Number: 0347  
Massachusetts: Listed: Massachusetts Oil and Hazardous List  
Pennsylvania: Listed  
Canada DSL: Listed  
Canadian Regulations: WHMIS Hazard Class(es): B2; D2B; D2A  
All components of this product are on the Canadian Domestic Substances List.

## SECTION 16 - ADDITIONAL INFORMATION

HMIS Fire Hazard: 3  
HMIS Health Hazard: 2\*  
HMIS Reactivity: 2  
HMIS Personal Protection: x  
MSDS Revision Date: 12/15/2009  
MSDS Revision Notes: "VOC Information Updated"  
MSDS Author: Actio Corporation  
Disclaimer: This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss,

**View MSDS :**    **1**   **2**   **3**   **4**   **5**   **6**   **7**   **8**   **9**   **10**   **11**   **12**   **13**   **14**   **15**   **16**

**SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:**                    **SPRAY ACTIVATOR**  
**Manufacturer Name:**            ITW Devcon  
**Address:**                            30 Endicott Street  
     Danvers, MA 01923  
**General Phone Number:**        (978) 777-1100  
**Emergency Phone Number:**    (800) 424-9300  
**CHEMTREC:**                        For emergencies in the US, call CHEMTREC: 800-424-9300  
**Canotec:**                            In Canada, call CANUTEC: (613) 996-6666 (call collect)  
**MSDS Revision Date:**            12/15/2009

HMIS	
Health Hazard	2*
Fire Hazard	3
REACTIVITY	2
Personal Protection	x

\* Chronic Health Effects:

**SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS#	Ingredient Percent
Methyl Methacrylate Monomer	80-62-6	60 - 100 by weight
3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyridine	34562-31-7	10 - 30 by weight

**SECTION 3 - HAZARDS IDENTIFICATION**

**Emergency Overview:**            WARNING! Flammable. Harmful. Skin Sensitizer. Irritant.  
**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. May cause respiratory sensitization with asthma-like symptoms in susceptible individuals.  
**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 4 - FIRST AID 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.  
**Inhalation:**                            If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.  
**Ingestion:**                            If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.  
**Other First Aid:**                        Due to possible aspiration into the lungs, DO NOT induce vomiting if ingested. Provide a glass of water to dilute the material in the stomach. If vomiting occurs naturally, have the person lean forward to reduce the risk of aspiration.

## SECTION 5 - FIRE FIGHTING MEASURES

<b>Flammable Properties:</b>	Flammable. Fine mists explosive below flash point.
<b>Flash Point:</b>	50°F (10°C)
<b>Flash Point Method:</b>	Tag Closed Cup (TCC)
<b>Auto Ignition Temperature:</b>	Not determined.
<b>Lower Flammable/Explosive Limit:</b>	2.1%
<b>Upper Flammable/Explosive Limit:</b>	12.5%
<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.
<b>Extinguishing Media:</b>	Use carbon dioxide (CO2) or dry chemical when fighting fires involving this material.
<b>Unsuitable Media:</b>	Water may cause frothing.
<b>Protective Equipment:</b>	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
<b>Unusual Fire Hazards:</b>	Sealed containers at elevated temperatures may rupture explosively and spread fire due to polymerization.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

<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.
<b>Personnel Precautions:</b>	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.
<b>Environmental Precautions:</b>	Avoid runoff into storm sewers, ditches, and waterways.
<b>Other Precautions:</b>	Pump or shovel to storage/salvage vessels. Add inhibitor to prevent polymerization.

## SECTION 7 - HANDLING and STORAGE

<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>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.
<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.
<b>Hygiene Practices:</b>	Wash thoroughly after handling.

## SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

<b>Engineering Controls:</b>	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.
<b>Eye/Face Protection:</b>	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.
<b>Skin Protection Description:</b>	Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.
<b>Respiratory Protection:</b>	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.
<b>Other Protective:</b>	Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station.

**EXPOSURE GUIDELINES****Methyl Methacrylate Monomer :**

<b>Guideline ACGIH:</b>	50 ppm Sensitizer: Sen TLV-STEL: 100 ppm TLV-TWA: 50 ppm
<b>Guideline OSHA:</b>	100 ppm PEL-TWA: 100 ppm
<b>Notes :</b>	Only established PEL and TLV values for the ingredients are listed.

**SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES**

<b>Physical State Appearance:</b>	Paste..
<b>Odor:</b>	Fragrant.
<b>Boiling Point:</b>	213°F (100.5°C)
<b>Melting Point:</b>	Not determined.
<b>Specific Gravity:</b>	0.96
<b>Solubility:</b>	Not determined.
<b>Vapor Density:</b>	3.5 (air = 1)
<b>Vapor Pressure:</b>	28 mmHg @68°F
<b>Percent Volatile:</b>	Not determined.
<b>Evaporation Rate:</b>	3 (butyl acetate = 1)
<b>pH:</b>	4.5-5.5 @ 5 Percent Solution
<b>Molecular Formula:</b>	Mixture
<b>Molecular Weight:</b>	Mixture
<b>Flash Point:</b>	50°F (10°C)
<b>Flash Point Method:</b>	Tag Closed Cup (TCC)
<b>Auto Ignition Temperature:</b>	Not determined.
<b>VOC Content:</b>	<200 g/l mixed.
<b>Percent Solids by Weight</b>	Not determined.

**SECTION 10 - STABILITY and REACTIVITY**

<b>Chemical Stability:</b>	Unstable.
<b>Hazardous Polymerization:</b>	Polymerization may occur under certain conditions.
<b>Conditions to Avoid:</b>	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.
<b>Incompatible Materials:</b>	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****Methyl Methacrylate Monomer :**

<b>RTECS Number:</b>	OZ5075000
<b>Eye:</b>	Eye - Rabbit Standard Draize Test.: 150 mg
<b>Skin:</b>	Intraperitoneal. - Guinea pig LD50: 1890 mg/kg [Behavioral - Somnolence (general depressed activity)] Subcutaneous - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity)] Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory depression] Intraperitoneal. - Rat LD50: 1328 mg/kg [Details of toxic effects not reported other than lethal dose value.] Subcutaneous - Rat LD50: 7088 mg/kg [Behavioral - Somnolence (general depressed activity)] Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than lethal dose value.] Intraperitoneal. - Mouse LD50: 945 mg/kg [Behavioral - Somnolence (general depressed activity)] Subcutaneous - Mouse LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity)]  Oral - Rabbit LD50: 8700 mg/kg [Details of toxic effects not reported other than lethal dose value.] Administration onto the skin - Rabbit LD50: >5 gm/kg [Skin and Appendages - Dermatitis, other (After systemic exposure)] Oral - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Gastrointestinal - Changes in structure or function of salivary glands] Administration onto the skin - Rabbit Open irritation test: 10 gm
<b>Inhalation:</b>	Inhalation - Rat LC50: 78000 mg/m3/4H [Details of toxic effects not reported other than lethal dose value.] Inhalation - Mouse LC50: 18500 mg/m3/2H [Details of toxic effects not reported other than lethal dose value.]



Ingestion: Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory depression]  
Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than lethal dose value.]

## SECTION 12 - ECOLOGICAL INFORMATION

**Ecotoxicity:** No ecotoxicity data was found for the product.  
**Environmental Fate:** No environmental information found for this product.

## SECTION 13 - DISPOSAL CONSIDERATIONS

**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:** Adhesives  
**DOT UN Number:** 1133  
**DOT Hazard Class:** 3  
**DOT Packing Group:** II  
**DOT Exemption:** ORM-D Small quantity exemption

## SECTION 15 - REGULATORY INFORMATION

### Methyl Methacrylate Monomer :

**TSCA Inventory Status:** Listed  
**SARA:** EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.  
**New Jersey:** Listed: NJ Hazardous List; Substance Number: 1277  
**Massachusetts:** Listed: Massachusetts Oil and Hazardous List  
**Pennsylvania:** Listed  
**Canada DSL:** Listed

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

**TSCA Inventory Status:** Listed  
**Canada DSL:** Listed  
**Canadian Regulations:** WHMIS Hazard Class(es): B2; D2B  
All components of this product are on the Canadian Domestic Substances List.

## SECTION 16 - ADDITIONAL INFORMATION

**HMIS Fire Hazard:** 3  
**HMIS Health Hazard:** 2\*  
**HMIS Reactivity:** 2  
**HMIS Personal Protection:** x  
**MSDS Revision Date:** 12/15/2009  
**MSDS Revision Notes:** "VOC Information Updated"  
**MSDS Author:** Actio Corporation  
**Disclaimer:** This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury or damage which may result from its use. The information given in the Data Sheet is designed only as a guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment.

Copyright© 1996-2010 Actio Software Corporation. All Rights Reserved.