PLEXUS
STRUCTURAL ADHESIVES

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name:	**AO420 ADHESIVE**
Stock No.:	IT102
Manufacturer Name:	ITW Plexus
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
MSDS Revision Date:	June 30, 2012
MSDS Format:	According to ANSI Z400.1-2004

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
2-chloro-1,3 butadiene	9010-98-4	10 - 30 by weight
Methacrylic acid	79-41-4	1 - 5 by weight
Methyl Methacrylate Monomer	80-62-6	60 - 100 by weight
Non-hazardous ingredients.	N/A	1 - 5 by weight
Trade secret.	N/A	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. Central nervous 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

Flammable Properties:	Flammable. Fine mists explosive below flash point.
Flash Point:	50°F (10°C)
Flash Point Method:	Tag closed cup (TCC)
Auto Ignition Temperature:	789°F
Lower Flammable/Explosive Limit:	1.7%
Upper Flammable/Explosive Limit:	12.5%
Fire Fighting Instructions:	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.
Extinguishing Media:	Use carbon dioxide (CO2) or dry chemical when fighting fires involving this material.
Unsuitable Media:	Water may cause frothing.
Protective Equipment:	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
Unusual Fire Hazards:	Sealed containers at elevated temperatures may rupture explosively and spread fire due to polymerization.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

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

SECTION 7 - HANDLING and STORAGE

Handling:	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.
Storage:	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.
Special Handling Procedures:	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.
Hygiene Practices:	Wash thoroughly after handling.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

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.
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.

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
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:	0.96
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:	Not determined.
Molecular Formula:	Mixture
Molecular Weight:	Mixture
Flash Point:	50°F (10°C)
Flash Point Method:	Tag closed cup (TCC)
Auto Ignition Temperature:	789°F
VOC Content:	<50 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

2-chloro-1,3 butadiene :

RTECS Number:	EI9640000
Ingestion:	Oral - Rat LD50: >40 gm/kg [Details of toxic effects not reported other than lethal dose value]

Methacrylic acid :

RTECS Number:	OZ2975000
Skin:	Administration onto the skin - Rabbit : 500 mg/kg [Details of toxic

	effects not reported other than lethal dose value] Administration onto the skin - Guinea pig : 1 gm/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:	Administration onto the skin - Human : 2 pph [Skin and Appendages - Dermatitis, allergic (After topical exposure)] Administration onto the skin - Rabbit : >5 gm/kg [Skin and Appendages - Dermatitis, other (After systemic exposure)] Administration onto the skin - Human : 2 pph/48H (Continuous) [Skin and Appendages - Dermatitis, allergic (After topical exposure)] Administration onto the skin - Rabbit : 10 gm
Inhalation:	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

2-chloro-1,3 butadiene :

TSCA Inventory Status:	Listed
Canada DSL:	Listed

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
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 Health Hazard:	2*
HMIS Fire Hazard:	3
HMIS Reactivity:	2
HMIS Personal Protection:	X
MSDS Revision Date:	June 30, 2012
MSDS Author:	Actio Corporation
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