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# Devcon®

MSDS Name **DEVCON® Flexane® Belt Repair Kit**  
 Manufacturer Name ITW Polymers Adhesives, North America  
 Stock No.: 15165  
 Kit MSDS Revision Date 12/30/2012

Components	
	FLEXANE 80 PUTTY RESIN
	CLEANER BLEND 300
	FL-20 PRIMER
	FLEXANE 80 PUTTY CURING AGENT
	FLEXANE FL-10 PRIMER
ITW Polymers Adhesives, North America Product Code : 15165	

## SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION

Product Name: **FLEXANE 80 PUTTY RESIN**  
 Manufacturer Name: ITW Polymers Adhesives, North America  
 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: 12/30/2012

HMIS	
Health Hazard	3*
Fire Hazard	1
Reactivity	1
Personal Protection	x

\* Chronic Health Effects

## SECTION 2 : COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
polypropylene glycol - PICM prepolymer	66101-60-8	60 - 100 by weight
Dicyclohexylmethane-4,4'-diisocyanate	5124-30-1	5 - 10 by weight
1,1'-Methylenebis (isocyanato)benzene	26447-40-5	1 - 5 by weight
4,4'-Diphenylmethane diisocyanate	101-68-8	1 - 5 by weight
Higher oligimers of methane diisocyanate (MDI)	9016-87-9	1 - 5 by weight
Trade secret.	N/A	1 - 5 by weight

## SECTION 3 : HAZARDS IDENTIFICATION

**Emergency Overview:** WARNING! Irritant. Potential Sensitizer.  
**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.

<b>Target Organs:</b>	Eyes. Skin. Respiratory system. Digestive system.
<b>Aggravation of Pre-Existing Conditions:</b>	Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product. Isocyanate exposure levels must be monitored. Medical supervision of all employees who handle or come in contact with isocyanates is recommended (i.e. FEV, FVC). This should include pre-employment and periodic medical examinations. Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases, recurrent skin eczema or sensitization should be excluded from working with this product. Once sensitized no further exposure can be permitted.

#### SECTION 4 : FIRST AID 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.
<b>Note to Physicians:</b>	Asthmatic type symptoms may develop, which may be immediate or delayed for several hours.

#### SECTION 5 : FIRE FIGHTING MEASURES

<b>Flash Point:</b>	453°F (233.8°C)
<b>Flash Point Method:</b>	Pensky-Martens Closed Cup
<b>Auto Ignition Temperature:</b>	Not determined.
<b>Lower Flammable/Explosive Limit:</b>	Not determined.
<b>Upper Flammable/Explosive Limit:</b>	Not determined.
<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>	Do not reseal containers if contaminated with water, resin will react with water to release carbon dioxide. As a result of the water contamination, pressure will build up in the sealed container causing it to rupture.

#### 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. Clean up spills immediately observing precautions in the protective equipment section. Neutralize residue with appropriate neutralizer. Do not attempt to neutralize large quantities of material unless measures to control reactivity and heat generation have been taken. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. After removal, flush spill area with soap and water to remove trace residue. Avoid personal contact and breathing vapors or mists. Ventilate area. Use proper personal protective equipment as listed in section 8. A blanket of protein foam may be placed over spill for temporary control of isocyanate vapor.
<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 large quantities into closed but not sealed metal containers. Isocyanates will react with water and generate carbon dioxide, this could result in the rupture of any closed containers. Neutralize using 10 parts neutralizer to 1 part isocyanate solution. Mix and allow to stand for 48 hrs in containers, letting evolved carbon dioxide to vent. Neutralizer consist of 90% water, 3-8% concentrated ammonia (or sodium carbonate), 2% detergent.

#### SECTION 7 : HANDLING and STORAGE

<b>Handling:</b>	Use with adequate ventilation. Avoid breathing vapor, aerosol or mist.
<b>Storage:</b>	Store in a cool, dry, well ventilated area away from sources of heat and incompatible materials. Keep container tightly closed when not in use. Do not reseal container if moisture or water contamination is suspected. Water contaminated material in a sealed container may rupture due to pressure buildup.
<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.

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

#### Dicyclohexylmethane-4,4'-diisocyanate:

**Guideline ACGIH:** 0.005 ppm  
TLV-TWA: 0.005 ppm

#### 4,4'-Diphenylmethane diisocyanate:

**Guideline ACGIH:** 0.005 ppm  
TLV-TWA: 0.005 ppm

**Guideline OSHA:** PEL-Ceiling/Peak: 0.02 ppm

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

## SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

**Physical State Appearance:** Liquid..

**Color:** Clear.

**Odor:** Slightly musty.

**Boiling Point:** >400°F (204.4°C)

**Melting Point:** Not determined.

**Specific Gravity:** 1.1 @ 77°F

**Solubility:** Insoluble

**Vapor Density:** 8.5 MDI (air = 1)

**Vapor Pressure:** < 10 mmHg @77°F (MDI)

**Percent Volatile:** 0

**Evaporation Rate:** Not determined.

**pH:** Not determined.

**Molecular Formula:** Mixture

**Molecular Weight:** Mixture

**Flash Point:** 453°F (233.8°C)

**Flash Point Method:** Pensky-Martens Closed Cup

**Auto Ignition Temperature:** Not determined.

**VOC Content:** 0 g/L

**Percent Solids by Weight** 100

## SECTION 10 : STABILITY and REACTIVITY

**Chemical Stability:** Stable under normal temperatures and pressures.

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

**Conditions to Avoid:** Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Moisture and extended exposure over 85 F.

**Incompatible Materials:** Alcohols, amines, strong bases (alkali, ammonia), acids, metal compounds, moisture or water. Resin reacts with water to give off carbon dioxide.

## SECTION 11 : TOXICOLOGICAL INFORMATION

#### Dicyclohexylmethane-4,4'-diisocyanate:

**RTECS Number:** NQ9250000

**Eye:** Eye - Rabbit Standard Draize test.: 100 uL  
Eye - Rabbit Standard Draize test.: 100 uL/24H

**Skin:** Administration onto the skin - Rabbit : >10 gm/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Food intake (animal) Behavioral - Muscle weakness]  
Administration onto the skin - Mouse : 220 mg/kg/12D (Intermittent)

[Skin and Appendages - Cutaneous sensitization, experimental (After topical exposure) Biochemical - Metabolism (Intermediary) - Other proteins Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of inflammation]  
 Administration onto the skin - Mouse : 2 pph/2W (Intermittent) [Lungs, Thorax, or Respiration - Other changes Immunological Including Allergic - Increase in humoral immune response]  
 Administration onto the skin - Mouse : 2 pph/4W (Intermittent) [Lungs, Thorax, or Respiration - Other changes Immunological Including Allergic - Increase in humoral immune response]  
 Administration onto the skin - Mouse : 280 mg/kg/14D (Intermittent) [Immunological Including Allergic - Increase in humoral immune response]  
 Administration onto the skin - Mouse : 480 mg/kg/28D (Intermittent) [Lungs, Thorax, or Respiration - Other changes]  
 Administration onto the skin - Rabbit : 500 uL/24H  
**Ingestion:** Oral - Rat LD50: 9900 mg/kg [Behavioral - Food intake (animal) Gastrointestinal - Hypermotility, diarrhea Liver - Other changes]

**4,4'-Diphenylmethane diisocyanate:**

**RTECS Number:** NQ9350000  
**Eye:** Eye - Rabbit Standard Draize test.: 100 mg  
**Skin:** Administration onto the skin - Mouse : 0.09 pph/2D (Intermittent) [Blood - Other changes Skin and Appendages - Cutaneous sensitization, experimental (After topical exposure)]  
 Administration onto the skin - Mouse : 220 mg/kg/12D (Intermittent) [Skin and Appendages - Cutaneous sensitization, experimental (After topical exposure) Biochemical - Metabolism (Intermediary) - Other proteins Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of inflammation]  
 Administration onto the skin - Mouse : 2 pph/2W (Intermittent) [Immunological Including Allergic - Increase in humoral immune response]  
 Administration onto the skin - Mouse : 2 pph/4W (Intermittent) [Immunological Including Allergic - Increase in humoral immune response]  
 Administration onto the skin - Mouse : 280 mg/kg/14D (Intermittent) [Immunological Including Allergic - Increase in humoral immune response]  
 Administration onto the skin - Rabbit : 500 mg/24H  
**Inhalation:** Inhalation - Rat LC50: 178 mg/m<sup>3</sup> [Details of toxic effects not reported other than lethal dose value]  
**Ingestion:** Oral - Rat LD50: 9200 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Nutritional and Gross Metabolic - Body temperature decrease]  
 Oral - Mouse LD50: 2200 mg/kg [Details of toxic effects not reported other than lethal dose value]

**Higher oligimers of methane diisocyanate (MDI):**

**RTECS Number:** TR0350000  
**Eye:** Eye - Rabbit Standard Draize test.: 100 mg [mild]  
**Skin:** Administration onto the skin - Rabbit LD50 : >9400 mg/kg [Details of toxic effects not reported other than lethal dose value]  
**Inhalation:** Inhalation - Rat LC50 : 490 mg/m<sup>3</sup>/4H [Sense Organs and Special Senses (Eye) - effect, not otherwise specified Lungs, Thorax, or Respiration - Respiratory depression Blood - Hemorrhage]  
**Ingestion:** Oral - Rat LD50 : 49 gm/kg [Behavioral - Somnolence (general depressed activity) Gastrointestinal - Hypermotility, diarrhea Nutritional and Gross Metabolic - Body temperature decrease]

**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:** None.

**SECTION 14 : TRANSPORT INFORMATION**

**DOT Shipping Name:** Non regulated.  
**DOT UN Number:** N/A  
**DOT Hazard Class:** Not applicable.  
**DOT Packing Group:** Not applicable.

**SECTION 15 : REGULATORY INFORMATION**

**polypropylene glycol - PIGM prepolymer :**  
**TSCA Inventory Status:** Listed  
**Canada DSL:** Listed  
**Dicyclohexylmethane-4,4'-diisocyanate :**  
**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: 3757  
 Massachusetts: Listed  
 Pennsylvania: Listed  
 Canada DSL: Listed

**1,1'-Methylenebis (isocyanato)benzene :**  
 TSCA Inventory Status: Listed  
 Canada DSL: Listed

**4,4'-Diphenylmethane diisocyanate :**  
 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: 3757  
 Massachusetts: Listed  
 Pennsylvania: Listed  
 Canada DSL: Listed

**Higher oligimers of methane diisocyanate (MDI) :**  
 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: 3757  
 Canada DSL: Listed  
 Canadian Regulations. WHMIS Hazard Class(es): D2A; D2B  
 All components of this product are on the Canadian Domestic Substances List.

## SECTION 16 : ADDITIONAL INFORMATION

HMIS Fire Hazard: 1  
 HMIS Health Hazard: 3\*  
 HMIS Reactivity: 1  
 HMIS Personal Protection: x  
 MSDS Revision Date: 12/30/2012  
 MSDS Author: Actio Corporation

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## SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION

Product Name: **CLEANER BLEND 300**  
 Manufacturer Name: ITW Polymers Adhesives, North America  
 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: 12/30/2012

HMIS	
Health Hazard	2*
Fire Hazard	2
Reactivity	1
Personal Protection	x

\* Chronic Health Effects

## SECTION 2 : COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
Propylene glycol monomethyl ether	107-98-2	30 - 60 by weight
d-Limonene	5989-27-5	5 - 10 by weight
1-methoxy-2-propanol acetate	108-65-6	10 - 30 by weight
Non-hazardous ingredients.	N/A	10 - 30 by weight
2-methoxy-1-propanol	1589-47-5	1 - 5 by weight

## SECTION 3 : HAZARDS IDENTIFICATION

Emergency Overview: WARNING! Flammable. 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.  
 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.
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.
Flash Point:	104°F (40°C)
Flash Point Method:	Tag Closed Cup (TCC)
Auto Ignition Temperature:	Not determined.
Lower Flammable/Explosive Limit:	3.0%
Upper Flammable/Explosive Limit:	12%
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 (CO <sub>2</sub> ) or dry chemical when fighting fires involving this material.
Protective Equipment:	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

#### SECTION 6 : ACCIDENTAL RELEASE MEASURES

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.
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.
Other Precautions:	Pump or shovel to storage/salvage vessels.

#### 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:	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
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	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

##### Propylene glycol monomethyl ether:

<b>Guideline ACGIH:</b>	100 ppm TLV-STEL: 150 ppm TLV-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>	Liquid..
<b>Color:</b>	Pale Amber..
<b>Odor:</b>	Ethereal.
<b>Boiling Point:</b>	212°F (100°C) initial
<b>Melting Point:</b>	Not determined.
<b>Specific Gravity:</b>	0.95
<b>Solubility:</b>	Appreciable.
<b>Vapor Density:</b>	>1 (air = 1)
<b>Vapor Pressure:</b>	12 mmHg @68°F
<b>Percent Volatile:</b>	100
<b>Evaporation Rate:</b>	<1 (butyl acetate = 1)
<b>pH:</b>	Not determined.
<b>Molecular Formula:</b>	Mixture
<b>Molecular Weight:</b>	Mixture
<b>Flash Point:</b>	104°F (40°C)
<b>Flash Point Method:</b>	Tag Closed Cup (TCC)
<b>Auto Ignition Temperature:</b>	Not determined.
<b>VOC Content:</b>	840 g/L
<b>Percent Solids by Weight</b>	0

#### SECTION 10 : STABILITY and REACTIVITY

<b>Chemical Stability:</b>	Stable under normal temperatures and pressures.
<b>Hazardous Polymerization:</b>	Not reported.
<b>Conditions to Avoid:</b>	Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions.
<b>Incompatible Materials:</b>	Oxidizing agents. Strong acids and alkalis.

#### SECTION 11 : TOXICOLOGICAL INFORMATION

##### Propylene glycol monomethyl ether:

<b>RTECS Number:</b>	UB7700000
<b>Eye:</b>	Eye - Rabbit Standard Draize test.: 500 mg/24H
<b>Skin:</b>	Administration onto the skin - Rabbit : 13 gm/kg [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - Rabbit : 455 mL/kg/13W (Intermittent) [Behavioral - General anesthetic Nutritional and Gross Metabolic - Weight loss or decreased weight gain Related to Chronic Data - death] Administration onto the skin - Rabbit : 900 mL/kg/90D (Intermittent) [Related to Chronic Data - death] Administration onto the skin - Rabbit : 500 mg
<b>Inhalation:</b>	Inhalation - Rat LC50: 10000 ppm/5H [Details of toxic effects not reported other than lethal dose value]
<b>Ingestion:</b>	Oral - Mouse LD50: 11700 mg/kg [Behavioral - Convulsions or effect on seizure threshold Behavioral - Ataxia Lungs, Thorax, or Respiration - Dyspnea] Oral - Rat LD50: 6600 mg/kg [Brain and Coverings - Other degenerative changes Behavioral - General anesthetic Lungs, Thorax, or Respiration - Dyspnea]

##### d-Limonene:

<b>RTECS Number:</b>	GW6360000
<b>Skin:</b>	Administration onto the skin - : >5 gm/kg [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - Rabbit : >5000 mg/kg [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - Rabbit : 10 %/24H Administration onto the skin - Rat : 100 %/1H

**Ingestion:** Oral - Rat LD50: 4400 mg/kg [Behavioral - Changes in motor activity (specific assay) Lungs, Thorax, or Respiration - Respiratory depression Skin and Appendages - Hair]  
Oral - Mouse LD50: 5600 mg/kg [Behavioral - Changes in motor activity (specific assay) Lungs, Thorax, or Respiration - Respiratory depression Skin and Appendages - Hair]

**1-methoxy-2-propanol acetate:**  
**RTECS Number:** AI8925000  
**Skin:** Administration onto the skin - Rabbit : >5 gm/kg [Details of toxic effects not reported other than lethal dose value]  
**Ingestion:** Oral - Rat LD50: 8532 mg/kg [Details of toxic effects not reported other than lethal dose value]  
**RTECS Number:** UB7645000

## 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:** 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

## SECTION 15 : REGULATORY INFORMATION

### **Propylene glycol monomethyl ether :**

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

### **d-Limonene :**

**TSCA Inventory Status:** Listed  
**Canada DSL:** Listed

### **1-methoxy-2-propanol acetate :**

**TSCA Inventory Status:** Listed  
**Canada DSL:** Listed

### **2-methoxy-1-propanol :**

**TSCA Inventory Status:** Listed  
**Canada DSL:** Listed  
**Canadian Regulations:** WHMIS Hazard Class(es): B3; D2B  
All components of this product are on the Canadian Domestic Substances List.

## SECTION 16 : ADDITIONAL INFORMATION

**HMIS Fire Hazard:** 2  
**HMIS Health Hazard:** 2\*  
**HMIS Reactivity:** 1  
**HMIS Personal Protection:** x  
**MSDS Revision Date:** 12/30/2012  
**MSDS Author:** Actio Corporation

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## SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** FL-20 PRIMER  
**Manufacturer Name:** ITW Polymers Adhesives, North America  
**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:** 12/30/2012

HMPS	
Health Hazard	3*
Fire Hazard	3
Reactivity	1
Personal Protection	x

\* Chronic Health Effects

## SECTION 2 : COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
Ethyl acetate	141-78-6	60 - 100 by weight
Higher oligimers of methane diisocyanate (MDI)	9016-87-9	1 - 5 by weight
4,4'-Diphenylmethane diisocyanate	101-68-8	1 - 5 by weight

## SECTION 3 : HAZARDS IDENTIFICATION

<b>Emergency Overview:</b>	WARNING! Flammable. Potential Sensitizer. Irritant.
<b>Route of Exposure:</b>	Eyes. Skin. Inhalation. Ingestion.
<b>Potential Health Effects:</b>	
<b>Eye:</b>	Can cause moderate irritation, burning sensation, tearing, redness, and swelling. Overexposure may cause lacrimation, conjunctivitis, corneal damage and permanent injury.
<b>Skin:</b>	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.
<b>Inhalation:</b>	Respiratory tract irritant. High concentration may cause dizziness, headache, and anesthetic effects. May cause respiratory sensitization with asthma-like symptoms in susceptible individuals.
<b>Ingestion:</b>	Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.
<b>Chronic Health Effects:</b>	Prolonged skin contact may lead to burning associated with severe reddening, swelling, and possible tissue destruction.
<b>Signs/Symptoms:</b>	Overexposure can cause headaches, dizziness, nausea, and vomiting.
<b>Target Organs:</b>	Eyes. Skin. Respiratory system. Digestive system.
<b>Aggravation of Pre-Existing Conditions:</b>	Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product. Isocyanate exposure levels must be monitored. Medical supervision of all employees who handle or come in contact with isocyanates is recommended (i.e. FEV, FVC). This should include pre-employment and periodic medical examinations. Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases, recurrent skin eczema or sensitization should be excluded from working with this product. Once sensitized no further exposure can be permitted.

## SECTION 4 : FIRST AID 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.
<b>Note to Physicians:</b>	Asthmatic type symptoms may develop, which may be immediate or delayed for several hours.
<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. Flammable liquid Class I B.
<b>Flash Point:</b>	24°F (-4.4°C)
<b>Flash Point Method:</b>	Tag Closed Cup (TCC)
<b>Auto Ignition Temperature:</b>	Not determined.
<b>Lower Flammable/Explosive Limit:</b>	2%
<b>Upper Flammable/Explosive</b>	11%

<b>Limit:</b>	
<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>	Do not reseal containers if contaminated with water, resin will react with water to release carbon dioxide. As a result of the water contamination, pressure will build up in the sealed container causing it to rupture.

## 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. Neutralize residue with appropriate neutralizer. Do not attempt to neutralize large quantities of material unless measures to control reactivity and heat generation have been taken. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. 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. A blanket of protein foam may be placed over spill for temporary control of isocyanate vapor.
<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 large quantities into closed but not sealed metal containers. Isocyanates will react with water and generate carbon dioxide, this could result in the rupture of any closed containers. Neutralize using 10 parts neutralizer to 1 part isocyanate solution. Mix and allow to stand for 48 hrs in containers, letting evolved carbon dioxide to vent. Neutralizer consist of 90% water, 3-8% concentrated ammonia (or sodium carbonate), 2% detergent.

## 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. Do not reseal container if moisture or water contamination is suspected. Water contaminated material in a sealed container may rupture due to pressure buildup.
<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

#### Ethyl acetate:

Guideline ACGIH:	400 ppm TLV-TWA: 400 ppm
Guideline OSHA:	400 ppm PEL-TWA: 400 ppm
<b>4,4'-Diphenylmethane diisocyanate:</b>	
Guideline ACGIH:	0.005 ppm TLV-TWA: 0.005 ppm
Guideline OSHA:	PEL-Ceiling/Peak: 0.02 ppm
Notes :	Only established PEL and TLV values for the ingredients are listed.

## SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance:	Liquid..
Color:	Mobile Orange.
Odor:	Solvent.
Boiling Point:	172°F (77.7°C)
Melting Point:	Not determined.
Specific Gravity:	0.91
Solubility:	moderately soluble.
Vapor Density:	3.0 (air = 1)
Vapor Pressure:	86 mmHg @68°F
Percent Volatile:	95
Evaporation Rate:	4.1 (butyl acetate = 1)
pH:	7 @ 5 Percent Solution
Molecular Formula:	Mixture
Molecular Weight:	Mixture
Flash Point:	24°F (-4.4°C)
Flash Point Method:	Tag Closed Cup (TCC)
Auto Ignition Temperature:	Not determined.
VOC Content:	860 g/L
Percent Solids by Weight	5

## SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:	Stable under normal temperatures and pressures.
Hazardous Polymerization:	Polymerization may occur under certain conditions.
Conditions to Avoid:	Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Moisture and extended exposure over 85 F.
Incompatible Materials:	Alcohols, amines, strong bases (alkali, ammonia), acids, metal compounds, moisture or water. Resin reacts with water to give off carbon dioxide.

## SECTION 11 : TOXICOLOGICAL INFORMATION

### Ethyl acetate:

RTECS Number:	AH5425000
Eye:	Eye - Human Standard Draize test.: 400 ppm
Skin:	Administration onto the skin - Rabbit : >20 mL/kg [Details of toxic effects not reported other than lethal dose value]
Inhalation:	Inhalation - Mouse LC50: 45 gm/m <sup>3</sup> /2H [Details of toxic effects not reported other than lethal dose value] Inhalation - Rat LC50: 1600 ppm/8H [Details of toxic effects not reported other than lethal dose value] Inhalation - Rat LC50: >6000 ppm/6H [Details of toxic effects not reported other than lethal dose value] Inhalation - Rat LC50: 200 gm/m <sup>3</sup> [Behavioral - Somnolence (general depressed activity) Lungs, Thorax, or Respiration - Acute pulmonary edema Gastrointestinal - Changes in structure or function of salivary glands]
Ingestion:	Oral - Mouse LD50: 4100 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Changes in motor activity (specific assay) Behavioral - Coma] Oral - Mouse LD50: 4.1 gm/kg [Details of toxic effects not reported other than lethal dose value] Oral - Rat LD50: 5620 mg/kg [Details of toxic effects not reported other than lethal dose value]

### Higher oligimers of methane diisocyanate (MDI):

RTECS Number:	TR0350000
Eye:	Eye - Rabbit Standard Draize test.: 100 mg [mild]
Skin:	Administration onto the skin - Rabbit LD50 : >9400 mg/kg [Details of toxic effects not reported other than lethal dose value]
Inhalation:	Inhalation - Rat LC50 : 490 mg/m <sup>3</sup> /4H [Sense Organs and Special Senses (Eye) - effect, not otherwise specified Lungs, Thorax, or Respiration - Respiratory depression Blood - Hemorrhage]
Ingestion:	Oral - Rat LD50 : 49 gm/kg [Behavioral - Somnolence (general depressed activity) Gastrointestinal - Hypermotility, diarrhea Nutritional and Gross Metabolic - Body temperature decrease]

### 4,4'-Diphenylmethane diisocyanate:

RTECS Number:	NQ9350000
Eye:	Eye - Rabbit Standard Draize test.: 100 mg
Skin:	Administration onto the skin - Mouse : 0.09 pph/2D (Intermittent) [Blood - Other changes Skin and Appendages - Cutaneous sensitization, experimental (After topical exposure)] Administration onto the skin - Mouse : 220 mg/kg/12D (Intermittent) [Skin and Appendages - Cutaneous sensitization, experimental (After

topical exposure) Biochemical - Metabolism (Intermediary) - Other proteins Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of inflammation]  
 Administration onto the skin - Mouse : 2 pph/2W (Intermittent) [Immunological Including Allergic - Increase in humoral immune response]  
 Administration onto the skin - Mouse : 2 pph/4W (Intermittent) [Immunological Including Allergic - Increase in humoral immune response]  
 Administration onto the skin - Mouse : 280 mg/kg/14D (Intermittent) [Immunological Including Allergic - Increase in humoral immune response]  
 Administration onto the skin - Rabbit : 500 mg/24H  
**Inhalation:** Inhalation - Rat LC50: 178 mg/m3 [Details of toxic effects not reported other than lethal dose value]  
**Ingestion:** Oral - Rat LD50: 9200 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Nutritional and Gross Metabolic - Body temperature decrease]  
 Oral - Mouse LD50: 2200 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, D009  
**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

## SECTION 15 : REGULATORY INFORMATION

### Ethylacetate :

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

### Higher oligimers of methane diisocyanate (MDI) :

**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: 3757  
**Canada DSL:** Listed

### 4,4'-Diphenylmethane diisocyanate :

**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: 3757  
**Massachusetts:** Listed  
**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:** 3\*  
**HMIS Reactivity:** 1  
**HMIS Personal Protection:** x  
**MSDS Revision Date:** 12/30/2012  
**MSDS Author:** Actio Corporation

## SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** FLEXANE 80 PUTTY CURING AGENT  
**Manufacturer Name:** ITW Polymers Adhesives, North America  
**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:** 12/30/2012

HMIS	
Health Hazard	2*
Fire Hazard	1
Reactivity	0
Personal Protection	x

\* Chronic Health Effects

## SECTION 2 : COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
Dipropylene glycol dibenzoate	27138-31-4	30 - 60 by weight
Epoxidized soybean oil	8013-07-8	1 - 5 by weight
Diethyltoluenediamine	68479-98-1	30 - 60 by weight
Carbon black	1333-86-4	1 - 5 by weight

## SECTION 3 : HAZARDS IDENTIFICATION

**Emergency Overview:** WARNING! Harmful. Irritant.  
**Route of Exposure:** Eyes. Skin. Inhalation. Ingestion.  
**Potential Health Effects:**  
**Eye:** Can cause severe eye irritation and burns. Eye contact may cause permanent damage or blindness.  
**Skin:** Causes severe skin irritation. May cause permanent skin damage.  
**Inhalation:** Vapor or mist may cause severe respiratory system irritation.  
**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 may cause eye watering or discomfort, redness and swelling.  
**Target Organs:** Eyes. Skin. Respiratory system. Digestive system.  
**Aggravation of Pre-Existing Conditions:** May aggravate pre-existing respiratory disorders, allergy, eczema, or skin conditions.

## 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.

## SECTION 5 : FIRE FIGHTING MEASURES

**Flammable Properties:** Material supports combustion.  
**Flash Point:** >275°F (135°C)  
**Flash Point Method:** Tag Closed Cup (TCC)  
**Auto Ignition Temperature:** Not determined.  
**Lower Flammable/Explosive Limit:** Not determined.  
**Upper Flammable/Explosive Limit:** Not determined.  
**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 or foam may cause frothing.  
**Protective Equipment:** As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

## 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. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush spill area with soap and water to remove trace residue. Avoid personal contact and breathing vapors or mists. 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.

## SECTION 7 : HANDLING and STORAGE

<b>Handling:</b>	Use with adequate ventilation. Avoid breathing vapor, aerosol or mist.
<b>Storage:</b>	Store in a cool, dry, well ventilated area away from sources of heat and incompatible materials. Keep container tightly closed when not in use. Do not store in reactive metal containers. Keep away from acids, oxidizers.
<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.
<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

#### **Carbon black:**

<b>Guideline ACGIH:</b>	3.5 mg/m <sup>3</sup> TLV-TWA: 3.5 mg/m <sup>3</sup>
<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>	Liquid..
<b>Color:</b>	Mobile Black..
<b>Odor:</b>	mild ammonia like.
<b>Boiling Point:</b>	>450°F (232.2°C)
<b>Melting Point:</b>	Not determined.
<b>Specific Gravity:</b>	1.08
<b>Solubility:</b>	negligible
<b>Vapor Density:</b>	>1 (air = 1)
<b>Vapor Pressure:</b>	<1 mmHg @70°F
<b>Percent Volatile:</b>	0
<b>Evaporation Rate:</b>	<<1 (butyl acetate = 1)
<b>pH:</b>	7-8 @ 5 Percent Solution
<b>Molecular Formula:</b>	Mixture
<b>Molecular Weight:</b>	Mixture
<b>Flash Point:</b>	>275°F (135°C)
<b>Flash Point Method:</b>	Tag Closed Cup (TCC)
<b>Auto Ignition Temperature:</b>	Not determined.
<b>VOC Content:</b>	0 g/L
<b>Percent Solids by Weight</b>	100

## SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:	Stable under normal temperatures and pressures.
Hazardous Polymerization:	Not reported.
Conditions to Avoid:	Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions.
Incompatible Materials:	Oxidizers, acids, and chlorinated organic compounds. Reactive metals (e.g. sodium, calcium, zinc). Sodium/calcium hypochlorite. Nitrous acid/oxide, nitrites. Peroxides. Materials reactive with hydroxyl compounds.

## SECTION 11 : TOXICOLOGICAL INFORMATION

### Epoxidized soybean oil:

RTECS Number:	LL1100000
Skin:	Administration onto the skin - Rabbit LD50 : >20 mL/kg [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - Rabbit Open irritation test: 500 mg [mild]
Ingestion:	Oral - Rat LD50 : 22500 uL/kg [Details of toxic effects not reported other than lethal dose value]

### Diethyltoluenediamine:

RTECS Number:	CZ1583125
Ingestion:	Oral - Rat LD50 : 472 mg/kg [Sense Organs and Special Senses (Eye) - Lacrimation Behavioral - Somnolence (general depressed activity) Musculoskeletal - Other changes]

### Carbon black:

RTECS Number:	FF5800000
Skin:	Administration onto the skin - Rabbit : >3 gm/kg [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - Rat : 11 gm/kg/4W (Intermittent) [Blood - Pigmented or nucleated red blood cells Liver - Changes in liver weight Nutritional and Gross Metabolic - Weight loss or decreased weight gain]
Ingestion:	Oral - Rat LD50: >15400 mg/kg [Behavioral - Somnolence (general depressed activity)]
Carcinogenicity:	IARC: Group 2B: Possibly carcinogenic to humans.

## 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:	None.

## SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name:	Non regulated.
DOT UN Number:	N/A
DOT Hazard Class:	Not applicable.
DOT Packing Group:	Not applicable.

## SECTION 15 : REGULATORY INFORMATION

### Dipropylene glycol dibenzoate :

TSCA Inventory Status:	Listed
Canada DSL:	Listed

### Epoxidized soybean oil :

TSCA Inventory Status:	Listed
Canada DSL:	Listed

### Diethyltoluenediamine :

TSCA Inventory Status:	Listed
Canada DSL:	Listed

### Carbon black :

TSCA Inventory Status:	Listed
California PROP 65:	Listed: cancer
Massachusetts:	Listed
Pennsylvania:	Listed
Canada DSL:	Listed
Canadian Regulations:	WHMIS Hazard Class(es): D2B; D2A

**SECTION 16 : ADDITIONAL INFORMATION**

HMIS Fire Hazard: 1  
 HMIS Health Hazard: 2\*  
 HMIS Reactivity: 0  
 HMIS Personal Protection: x  
 MSDS Revision Date: 12/30/2012  
 MSDS Author: Actio Corporation

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**SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION**

Product Name: **FLEXANE FL-10 PRIMER**  
 Manufacturer Name: ITW Polymers Adhesives, North America  
 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: 12/30/2012

HMIS	
Health Hazard	2*
Fire Hazard	3
Reactivity	1
Personal Protection	x

\* Chronic Health Effects

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

Chemical Name	CAS#	Ingredient Percent
Phenolic Resin	9003-35-4	5 - 10 by weight
Methyl Isobutyl Ketone	108-10-1	30 - 60 by weight
Ethanol	64-17-5	1 - 5 by weight
Isopropanol	67-63-0	10 - 30 by weight
Toluene	108-88-3	10 - 30 by weight

**SECTION 3 : HAZARDS IDENTIFICATION**

Emergency Overview: WARNING! Flammable. 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.  
 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. Kidney. Central nervous system.  
 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.
<b>Flash Point:</b>	55°F (12.7°C)
<b>Flash Point Method:</b>	Tag Closed Cup (TCC)
<b>Auto Ignition Temperature:</b>	Not determined.
<b>Lower Flammable/Explosive Limit:</b>	1.3%
<b>Upper Flammable/Explosive Limit:</b>	8.0%
<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>Protective Equipment:</b>	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

## 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.

## 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 Isobutyl Ketone:**

Guideline ACGIH:	50 ppm TLV-STEL: 75 ppm TLV-TWA: 30 ppm TLV-TWA: 50 ppm
Guideline OSHA:	100 ppm PEL-TWA: 100 ppm
<b>Ethanol:</b>	
Guideline ACGIH:	1000 ppm TLV-TWA: 1000 ppm
Guideline OSHA:	1000 ppm PEL-TWA: 1000 ppm
<b>Isopropanol:</b>	
Guideline ACGIH:	200 ppm TLV-STEL: 400 ppm TLV-TWA: 200 ppm
Guideline OSHA:	400 ppm PEL-TWA: 400 ppm
<b>Toluene:</b>	
Guideline ACGIH:	50 ppm TLV-TWA: 20 ppm
Guideline OSHA:	200 ppm PEL-Ceiling/Peak: 300 ppm PEL-Ceiling/Peak: 500 ppm Peak PEL-TWA: 200 ppm
Notes :	Only established PEL and TLV values for the ingredients are listed.

## SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance:	Liquid..
Color:	Blue.
Odor:	Solvent.
Boiling Point:	195°F (90.5°C)
Melting Point:	Not determined.
Specific Gravity:	0.87
Solubility:	Approximately. 35%
Vapor Density:	>1 (air = 1)
Vapor Pressure:	13 mmHg @68°F
Percent Volatile:	80
Evaporation Rate:	>1 (butyl acetate = 1)
pH:	Approximately 7 @ 5 Percent Solution
Molecular Formula:	Mixture
Molecular Weight:	Mixture
Flash Point:	55°F (12.7°C)
Flash Point Method:	Tag Closed Cup (TCC)
Auto Ignition Temperature:	Not determined.
VOC Content:	640 g/L
Percent Solids by Weight	20

## SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:	Stable under normal temperatures and pressures.
Hazardous Polymerization:	Not reported.
Conditions to Avoid:	Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Heating resin above 300 F in the presence of air may cause slow oxidative decomposition.
Incompatible Materials:	Oxidizing agents. Strong acids and alkalis.

## SECTION 11 : TOXICOLOGICAL INFORMATION

<b>Phenolic Resin:</b>	
RTECS Number:	SM8542500
Skin:	Administration onto the skin - Rat LD50 : >2 gm/kg [Details of toxic effects not reported other than lethal dose value ] Administration onto the skin - Human TClO : 1 pph [Skin and Appendages - Dermatitis, allergic (After topical exposure) ]
Ingestion:	Oral - Rat LD50 : >5 gm/kg [Details of toxic effects not reported other than lethal dose value ]
<b>Methyl Isobutyl Ketone:</b>	
RTECS Number:	SA9275000
Eye:	Eye - Human Standard Draize test.: 200 ppm/15M Eye - Rabbit Standard Draize test.: 40 mg Eye - Rabbit Standard Draize test.: 100 uL/24H
Skin:	Administration onto the skin - Rabbit : >3 gm/kg [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - Rat : 35700 mg/kg/17W (Intermittent) [Brain and Coverings - recordings from specific areas of CNS Nutritional and Gross Metabolic - Body temperature decrease Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - Other oxidoreductases] Administration onto the skin - Rabbit : 500 mg/24H
Inhalation:	Inhalation - Rat LC50: 100 gm/m3 [Details of toxic effects not reported other than lethal dose value] Inhalation - Mouse LC50: 23300 mg/m3 [Details of toxic effects not reported other than lethal dose value] Inhalation - Mouse LC50: 23300 mg/m3 [Brain and Coverings -

	Increased intracranial pressure Lungs, Thorax, or Respiration - Other changes Liver - Fatty liver degeneration]
<b>Ingestion:</b>	Oral - Rat LD50: 2080 mg/kg [Details of toxic effects not reported other than lethal dose value] Oral - Mouse LD50: 1900 mg/kg [Details of toxic effects not reported other than lethal dose value] Oral - Mouse LD50: 2850 mg/kg [Brain and Coverings - Increased intracranial pressure Liver - Fatty liver degeneration Blood - Changes in spleen] Oral - Rat LD50: 4600 mg/kg [Brain and Coverings - Increased intracranial pressure Liver - Fatty liver degeneration Blood - Changes in spleen]
<b>Ethanol:</b>	
<b>RTECS Number:</b>	KQ6300000
<b>Eye:</b>	Eye - Rabbit Standard Draize test.: 500 mg Eye - Rabbit Standard Draize test.: 500 mg/24H Eye - Rabbit Rinsed with water.: 100 mg/4S
<b>Skin:</b>	Administration onto the skin - Rabbit : 20000 mg/kg [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - Rabbit : 400 mg Administration onto the skin - Rabbit : 20 mg/24H
<b>Inhalation:</b>	Inhalation - Rat LC50: 20000 ppm/10H [Details of toxic effects not reported other than lethal dose value] Inhalation - Mouse LC50: 39 gm/m3/4H [Details of toxic effects not reported other than lethal dose value]
<b>Ingestion:</b>	Oral - Mouse LD50: 3450 mg/kg [Details of toxic effects not reported other than lethal dose value] Oral - Rat LD50: 7 gm/kg [Details of toxic effects not reported other than lethal dose value] Oral - Rat LD50: 7060 mg/kg [Lungs, Thorax, or Respiration - Other changes]
<b>Isopropanol:</b>	
<b>RTECS Number:</b>	NT8050000
<b>Eye:</b>	Eye - Rabbit Standard Draize test.: 100 mg Eye - Rabbit Standard Draize test.: 10 mg Eye - Rabbit Standard Draize test.: 100 mg/24H
<b>Skin:</b>	Administration onto the skin - Rabbit : 12800 mg/kg [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - Rabbit : 500 mg
<b>Inhalation:</b>	Inhalation - Rat LC50: 16000 ppm/8H [Details of toxic effects not reported other than lethal dose value] Inhalation - Mouse LC50: 53000 mg/m3 [Behavioral - General anesthetic Lungs, Thorax, or Respiration - Other changes] Inhalation - Rat LC50: 72600 mg/m3 [Behavioral - General anesthetic Lungs, Thorax, or Respiration - Other changes]
<b>Ingestion:</b>	Oral - Rat LD50: 5045 mg/kg [Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Somnolence (general depressed activity)] Oral - Mouse LD50: 3600 mg/kg [Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Somnolence (general depressed activity)] Oral - Mouse LD50: 3600 mg/kg [Behavioral - General anesthetic] Oral - Rat LD50: 5000 mg/kg [Behavioral - General anesthetic]
<b>Carcinogenicity:</b>	IARC 3
<b>Toluene:</b>	
<b>RTECS Number:</b>	XS5250000
<b>Eye:</b>	Eye - Human Standard Draize test.: 300 ppm Eye - Rabbit Standard Draize test.: 870 ug Eye - Rabbit Standard Draize test.: 2 mg/24H Eye - Rabbit Rinsed with water.: 100 mg/30S
<b>Skin:</b>	Administration onto the skin - Rabbit : 14100 uL/kg [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - Rat : 26.4 mg/kg [Skin and Appendages - Dermatitis, irritative (After systemic exposure) Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of inflammation] Administration onto the skin - Rabbit : 217 mg/kg/2D (Continuous) [Skin and Appendages - Primary irritation (After topical exposure)] Administration onto the skin - Rabbit : 435 mg Administration onto the skin - Rabbit : 500 mg Administration onto the skin - Rabbit : 20 mg/24H Administration onto the skin - : 250 uL/24H
<b>Inhalation:</b>	Inhalation - Rat LC50: 49 gm/m3/4H [Details of toxic effects not reported other than lethal dose value] Inhalation - Mouse LC50: 400 ppm/24H [Details of toxic effects not reported other than lethal dose value] Inhalation - Mouse LC50: 30000 mg/m3/2H [Details of toxic effects not reported other than lethal dose value] Inhalation - Mouse LC50: 19900 mg/m3/7H [Details of toxic effects not reported other than lethal dose value] Inhalation - Mouse LC50: 10000 mg/m3 [Behavioral - Somnolence (general depressed activity)]
<b>Ingestion:</b>	Oral - Rat LD50: 636 mg/kg [Details of toxic effects not reported other than lethal dose value]

## SECTION 12 : ECOLOGICAL INFORMATION

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

## SECTION 13 : DISPOSAL CONSIDERATIONS

<b>Waste Disposal:</b>	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.
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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

## SECTION 15 : REGULATORY INFORMATION

### Phenolic Resin :

TSCA Inventory Status: Listed  
Canada DSL: Listed

### Methyl Isobutyl Ketone :

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: 1268  
Massachusetts: Listed: Massachusetts Oil and Hazardous List  
Pennsylvania: Listed  
Canada DSL: Listed

### Ethanol :

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

### Isopropanol :

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: 1076  
Massachusetts: Listed  
Pennsylvania: Listed  
Canada DSL: Listed

### Toluene :

TSCA Inventory Status: Listed  
SARA: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.  
California PROP 65: Listed: developmental  
New Jersey: Listed: NJ Hazardous List; Substance Number: 1866  
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: 1  
HMIS Personal Protection: x  
MSDS Revision Date: 12/30/2012  
MSDS Author: Actio Corporation

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