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# Devcon®

MSDS Name **DEVCON® Ceramic Repair Putty**  
 Manufacturer Name ITW Polymers Adhesives, North America  
 Stock No.: 11700  
 Kit MSDS Revision Date 12/30/2012

Components	
	CERAMIC REPAIR RESIN
	CERAMIC REPAIR HARDENER
ITW Polymers Adhesives, North America Product Code : 11700	

## SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION

Product Name: **CERAMIC REPAIR 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	2*
Fire Hazard	1
Reactivity	1
Personal Protection	x

\* Chronic Health Effects

## SECTION 2 : COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
Bisphenol A diglycidyl ether resin	25068-38-6	30 - 60 by weight
Fillers	N/A	30 - 60 by weight
Inert material	N/A	1 - 5 by weight
Xylene	1330-20-7	1 - 5 by weight
Trade secret.	N/A	1 - 5 by weight
Titanium dioxide	13463-67-7	1 - 5 by weight

## SECTION 3 : HAZARDS IDENTIFICATION

**Emergency Overview:** WARNING! Combustible. Potential 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.  
**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.

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## SECTION 4 : FIRST AID MEASURES

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<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>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.

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## SECTION 5 : FIRE FIGHTING MEASURES

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<b>Flash Point:</b>	>250°F (121.1°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 or foam 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. Heating above 300 deg F in the presence of air may cause slow oxidative decomposition and above 500 deg F may cause polymerization.

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## SECTION 6 : ACCIDENTAL RELEASE MEASURES

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<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. Combustible, eliminate ignition sources. At elevated temperatures, 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.

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## SECTION 7 : HANDLING and STORAGE

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

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

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<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

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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

##### Xylene:

**Guideline ACGIH:** 100 ppm  
TLV-STEL: 150 ppm  
TLV-TWA: 100 ppm

##### Titanium dioxide:

**Guideline ACGIH:** 10 mg/m<sup>3</sup>  
TLV-TWA: 10 mg/m<sup>3</sup>

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

#### SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

**Physical State Appearance:** Viscous. Liquid..  
**Color:** Amber.  
**Odor:** Slight odor  
**Boiling Point:** >500°F (260°C)  
**Melting Point:** Not determined.  
**Specific Gravity:** 1.66  
**Solubility:** negligible  
**Vapor Density:** >1 (air = 1)  
**Vapor Pressure:** Not determined.  
**Percent Volatile:** <3  
**Evaporation Rate:** <<1 (butyl acetate = 1)  
**pH:** Neutral.  
**Molecular Formula:** Mixture  
**Molecular Weight:** Mixture  
**Flash Point:** >250°F (121.1°C)  
**Flash Point Method:** Pensky-Martens Closed Cup  
**Auto Ignition Temperature:** Not determined.  
**VOC Content:** 33 g/L  
**Percent Solids by Weight** >97

#### 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:** Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (especially primary and secondary aliphatic amines).

#### SECTION 11 : TOXICOLOGICAL INFORMATION

##### Bisphenol A diglycidyl ether resin:

**RTECS Number:** SL6480000  
**Skin:** Administration onto the skin - Rat LD : >2 gm/kg [Nutritional and Gross Metabolic - Other changes]

##### Xylene:

**RTECS Number:** ZE2100000  
**Eye:** Eye - Rabbit Standard Draize test.: 87 mg  
Eye - Rabbit Standard Draize test.: 5 mg/24H  
Eye - Human Standard Draize test.: 200 ppm  
**Skin:** Administration onto the skin - Rat : 920 uL/kg/1H [Skin and Appendages - Primary irritation (After topical exposure)]  
Administration onto the skin - Rat : 909.1 uL/kg/2H [Biochemical - Metabolism (Intermediary) - Other]  
Administration onto the skin - Mouse : 4.21 mL/kg [Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of inflammation]  
Administration onto the skin - Rabbit : >1700 mg/kg [Details of toxic effects not reported other than lethal dose value]  
Administration onto the skin - Rat : 960 uL/kg/4D (Intermittent) [Skin and Appendages - Primary irritation (After topical exposure)]  
Administration onto the skin - Rat : 960 uL/kg/4D (Intermittent) [Skin and Appendages - Primary irritation (After topical exposure) Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of inflammation]  
Administration onto the skin - Rabbit : 100 %  
Administration onto the skin - Rabbit : 500 mg/24H  
Administration onto the skin - Rat : 60 uL/8H  
**Inhalation:** Inhalation - Rat LC50: 5000 ppm/4H [Details of toxic effects not reported other than lethal dose value]  
**Ingestion:** Oral - Rat LD50: 4300 mg/kg [Liver - Other changes  
Kidney/Ureter/Bladder - Other changes]

Oral - Mouse LD50: 2119 mg/kg [Details of toxic effects not reported other than lethal dose value]

**Titanium dioxide:**

RTECS Number: XR2275000  
Skin: Administration onto the skin - Human : 300 ug/3D (Intermittent)  
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**

**Bisphenol A diglycidyl ether resin :**

TSCA Inventory Status: Listed  
Canada DSL: Listed

**Xylene :**

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: 2014  
Massachusetts: Listed: Massachusetts Oil and Hazardous List  
Pennsylvania: Listed  
Canada DSL: Listed

**Titanium dioxide :**

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

**SECTION 16 : ADDITIONAL INFORMATION**

HMIS Fire Hazard: 1  
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: **CERAMIC REPAIR HARDENER**  
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

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
Formaldehyde polymer with phenol and TETA	32610-77-8	30 - 60 by weight
Titanium dioxide	13463-67-7	1 - 5 by weight
Phenol	108-95-2	10 - 30 by weight
Inert material	N/A	10 - 30 by weight
2-Propenenitrile, reaction products with ethylenediamine, hydrogenated	68909-99-9	1 - 5 by weight
Triethylenetetramine	112-24-3	5 - 10 by weight

**SECTION 3 : HAZARDS IDENTIFICATION**

<b>Emergency Overview:</b>	DANGER! Corrosive. Toxic. Harmful. Irritant.
<b>Route of Exposure:</b>	Eyes. Skin. Inhalation. Ingestion.
<b>Potential Health Effects:</b>	
<b>Eye:</b>	Corrosive. Will cause eye burns, permanent tissue damage, and blindness.
<b>Skin:</b>	Contact causes severe skin irritation and possible burns. may cause permanent skin damage.
<b>Inhalation:</b>	May cause severe respiratory system irritation.
<b>Ingestion:</b>	Harmful if swallowed. Corrosive to the gastrointestinal tract.
<b>Chronic Health Effects:</b>	Prolonged skin contact causes burns. Repeated or prolonged inhalation may cause toxic effects.
<b>Signs/Symptoms:</b>	Depending on solution concentration, material may be corrosive to skin, mucous membranes and eyes. Vapors may cause respiratory irritation.
<b>Target Organs:</b>	Eyes. Skin. Respiratory system. Digestive system.
<b>Aggravation of Pre-Existing Conditions:</b>	May aggravate pre-existing respiratory disorders, allergy, eczema, or skin conditions.

**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.

**SECTION 5 : FIRE FIGHTING MEASURES**

<b>Flammable Properties:</b>	Class III B.
<b>Flash Point:</b>	>250°F (121.1°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 (CO2) or dry chemical when fighting fires involving this material.
<b>Unsuitable Media:</b>	Water or foam 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.

**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.
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<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. Avoid contact with eyes and skin. 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 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>	Chemical-resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing.
<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

#### **Titanium dioxide:**

**Guideline ACGIH:** 10 mg/m<sup>3</sup>  
TLV-TWA: 10 mg/m<sup>3</sup>

#### **Phenol:**

**Guideline ACGIH:** 5 ppm  
Skin: Yes  
TLV-TWA: 5 ppm

**Guideline OSHA:** 5 ppm  
Skin: Yes  
PEL-TWA: 5 ppm

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

## SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

<b>Physical State Appearance:</b>	Paste..
<b>Color:</b>	White.
<b>Odor:</b>	mild phenolic-like.
<b>Boiling Point:</b>	Not determined.
<b>Melting Point:</b>	Not determined.
<b>Specific Gravity:</b>	1.09
<b>Solubility:</b>	Appreciable.
<b>Vapor Density:</b>	Not determined.
<b>Vapor Pressure:</b>	<1 mmHg @68°F
<b>Percent Volatile:</b>	0
<b>Evaporation Rate:</b>	<<1 (butyl acetate = 1)
<b>pH:</b>	alkaline
<b>Molecular Formula:</b>	Mixture
<b>Molecular Weight:</b>	Mixture
<b>Flash Point:</b>	>250°F (121.1°C)
<b>Flash Point Method:</b>	Pensky-Martens Closed Cup
<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

<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. Product may slowly corrode copper, aluminum, zinc and galvanized surfaces.
<b>Incompatible Materials:</b>	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

### **Titanium dioxide:**

<b>RTECS Number:</b>	XR2275000
<b>Skin:</b>	Administration onto the skin - Human : 300 ug/3D (Intermittent)
<b>Carcinogenicity:</b>	IARC: Group 2B: Possibly carcinogenic to humans.

### **Phenol:**

<b>RTECS Number:</b>	SJ3325000
<b>Eye:</b>	Eye - Rabbit Standard Draize test.: 5 mg Eye - Rabbit Rinsed with water.: 5 mg/30S
<b>Skin:</b>	Administration onto the skin - Rat : 669 mg/kg [Behavioral - Tremor Kidney/Ureter/Bladder - Hematuria Skin and Appendages - Cutaneous sensitization, experimental (After topical exposure)] Administration onto the skin - Mouse : 329 mg/kg/30M [Skin and Appendages - Primary irritation (After topical exposure) Biochemical - Metabolism (Intermediary) - Other Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of inflammation] Administration onto the skin - Rabbit : 630 mg/kg [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - Rat : 1500 mg/kg [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - : 400 uL/30S Administration onto the skin - Rabbit : 535 mg Administration onto the skin - Rabbit : 100 mg Administration onto the skin - Mouse : 16 gm/kg/40W (Intermittent) [Tumorigenic - carcinogenic by RTECS criteria Skin and Appendages - Tumors] Administration onto the skin - Mouse : 4000 mg/kg/24W (Intermittent) [Tumorigenic - neoplastic by RTECS criteria Skin and Appendages - Tumors]
<b>Inhalation:</b>	Inhalation - Mouse LC50: 177 mg/m <sup>3</sup> [Details of toxic effects not reported other than lethal dose value] Inhalation - Rat LC50: 316 mg/m <sup>3</sup> [Details of toxic effects not reported other than lethal dose value] Inhalation - Mouse LC50: 177 mg/m <sup>3</sup> /4H [Details of toxic effects not reported other than lethal dose value] Inhalation - Rat LC50: 316 mg/m <sup>3</sup> /4H [Details of toxic effects not reported other than lethal dose value]
<b>Ingestion:</b>	Oral - Rat LD50: 317 mg/kg [Behavioral - Convulsions or effect on seizure threshold] Oral - Mouse LD50: 270 mg/kg [Details of toxic effects not reported other than lethal dose value] Oral - Rat LD50: 512 mg/kg [Details of toxic effects not reported other than lethal dose value]

### **Triethylenetetramine:**

<b>RTECS Number:</b>	YE6650000
<b>Eye:</b>	Eye - Rabbit Standard Draize test.: 49 mg Eye - Rabbit Standard Draize test.: 20 mg/24H
<b>Skin:</b>	Administration onto the skin - Rabbit LD50: 805 mg/kg [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - Rabbit Open irritation test: 490 mg Administration onto the skin - Rabbit Standard Draize test.: 5 mg/24H Administration onto the skin - Guinea pig TDLo: 3667 mg/kg [Reproductive - Effects on Embryo or Fetus - Fetal death]
<b>Ingestion:</b>	Oral - Rat LD50: 2500 mg/kg [Details of toxic effects not reported other than lethal dose value] Oral - Mouse LD50: 38.5 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.
<b>RCRA Number:</b>	Not determined.

## SECTION 14 : TRANSPORT INFORMATION

<b>DOT Shipping Name:</b>	Refer to Bill of Lading
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DOT Shipping Name:  
DOT UN Number:

Refer to Bill of Lading

## SECTION 15 : REGULATORY INFORMATION

### Formaldehyde polymer with phenol and TETA :

TSCA Inventory Status: Listed  
Canada DSL: Listed

### Titanium dioxide :

TSCA Inventory Status: Listed  
Massachusetts: Listed  
Pennsylvania: Listed  
Canada DSL: Listed

### Phenol:

TSCA Inventory Status: Listed  
SARA: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.  
Section 302 EHS: EPCRA (SARA Title III) Section 302 (40 CFR Part 355) Extremely Hazardous Substances (EHS) Threshold Planning Quantity (TPQ) in pounds: 500/10,000 Lbs.  
Section 302 RQ: EPCRA (SARA Title III) Section 302 Extremely Hazardous Substances (EHS) Reportable Quantities (RQ) in pounds: 1,000 Lbs.  
New Jersey: Listed: NJ Hazardous List; Substance Number: 1487  
Massachusetts: Listed: Massachusetts Oil and Hazardous List  
Pennsylvania: Listed  
Canada DSL: Listed

### 2-Propenenitrile, reaction products with ethylenediamine, hydrogenated :

TSCA Inventory Status: Listed  
Canada DSL: Listed

### Triethylenetetramine :

TSCA Inventory Status: Listed  
Massachusetts: Listed  
Pennsylvania: Listed  
Canada DSL: Listed  
Canadian Regulations: WHMIS Hazard Class(es): E; D2B; D1B  
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 Revision Notes: "Formula change"  
MSDS Author: Actio Corporation

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