



KIT - SAFETY DATA SHEET

Product identifier used on the label:

Kit Name **DEVCON® 2 Ton® Epoxy [1:1]**
Stock No.: 14310

Other means of identification:

Recommended use of the chemical and restrictions on use:

Chemical manufacturer address and telephone number:

Manufacturer Name: ITW Polymers Adhesives, North America
Address: 30 Endicott Street
Danvers, MA 01923

| Component list | |
|-----------------------|----------------------------|
| Component A | 5-MINUTE EPOXY RESIN |
| Component B | ANCAMINE 1767 CURING AGENT |
| Kit SDS Revision Date | 09/10/2015 |

Component A - SDS

SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name: **5-MINUTE EPOXY RESIN**

Other means of identification:

Recommended use of the chemical and restrictions on use:

Chemical manufacturer address and telephone number:

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

Emergency phone number:

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

SECTION 2 : HAZARD(S) IDENTIFICATION

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

GHS Pictograms:



Signal Word: WARNING.

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

Hazard Statements: H319 - Causes serious eye irritation.
H317 - May cause an allergic skin reaction.
H335 - May cause respiratory irritation.

Precautionary Statements: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P321 - Specific treatment (see ... on this label).
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

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

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| 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. |

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

| Chemical Name | CAS# | Ingredient Percent | EC Num. |
|------------------------------------|-------------|---------------------------|----------------|
| Bisphenol A diglycidyl ether resin | 25068-38-6 | 95 - 100 by weight | |

SECTION 4 : FIRST AID MEASURES

Description of necessary measures:

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| 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

Suitable and unsuitable extinguishing media:

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| Suitable Extinguishing Media: | Use carbon dioxide (CO2) or dry chemical when fighting fires involving this material. |
| Unsuitable extinguishing media: | None known. |
| Unusual Fire Hazards: | 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. |

Special protective equipment and precautions for fire-fighters:

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|------------------------------------|---|
| Protective Equipment: | As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear. |
| 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. |

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

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| Personnel Precautions: | Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. |
| <u>Environmental precautions:</u> | |
| Environmental Precautions: | Avoid runoff into storm sewers, ditches, and waterways. |
| <u>Methods and materials for containment and cleaning up:</u> | |
| Spill Cleanup Measures: | 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. |
| <u>Reference to other sections:</u> | |
| Other Precautions: | Pump or shovel to storage/salvage vessels. |

SECTION 7 : HANDLING and STORAGE

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| <u>Precautions for safe handling:</u> | |
| Handling: | Use with adequate ventilation. Avoid breathing vapor, aerosol or mist. |
| Hygiene Practices: | Wash thoroughly after handling. |
| Special Handling Procedures: | Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product. |
| <u>Conditions for safe storage, including any incompatibilities:</u> | |
| Storage: | Store in a cool, dry, well ventilated area away from sources of heat and incompatible materials. Keep container tightly closed when not in use. |

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

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| <u>EXPOSURE GUIDELINES:</u> | |
| <u>Appropriate engineering controls:</u> | |
| 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. |
| <u>Individual protection measures:</u> | |
| 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. Nitrile gloves are recommended. |
| Respiratory Protection: | A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. |
| Other Protective: | Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station. |
| Notes : | Only established PEL and TLV values for the ingredients are listed. |

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

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|---|--------------------------|
| <u>PHYSICAL AND CHEMICAL PROPERTIES:</u> | |
| Physical State Appearance: | Viscous. Liquid. |
| Color: | Clear |
| Odor: | Slight. odor. |
| Boiling Point: | >500°F (260°C) |
| Melting Point: | Not determined. |
| Specific Gravity: | 1.17 |
| Solubility: | negligible. |
| Vapor Density: | >1 (air = 1) |
| Vapor Pressure: | 0.03 mbar @ 77°C (171°F) |
| Percent Volatile: | 0 |
| Evaporation Rate: | <<1 (butyl acetate = 1) |
| pH: | Neutral. |
| Molecular Formula: | Mixture |
| Molecular Weight: | Mixture |

| | |
|----------------------------------|---------------------------------|
| Flash Point: | >400°F (204.4°C) |
| Flash Point Method: | Pensky-Marten Closed Cup (PMCC) |
| Lower Flammable/Explosive Limit: | Not determined. |
| Upper Flammable/Explosive Limit: | Not determined. |
| Auto Ignition Temperature: | Not determined. |
| VOC Content: | 0 g/L |
| <u>9.2. Other information:</u> | |
| Percent Solids by Weight | 100 |

SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:

Chemical Stability: Stable under normal temperatures and pressures.

Possibility of hazardous reactions:

Hazardous Polymerization: Not reported.

Conditions To Avoid:

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:

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

TOXICOLOGICAL INFORMATION:

Bisphenol A diglycidyl ether resin :

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|-------------------|--|
| Eye: | Administration into the eye - Rabbit Standard Draize test: 100 mg [Mild] Administration into the eye - Rabbit Standard Draize test: 20 mg/24H [Moderate] Administration into the eye - Rabbit Standard Draize test: 5 mg/24H [Severe] (RTECS) |
| Skin: | Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: >20 mL/kg [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - Rat LD50 - Lethal dose, 50 percent kill: >1200 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS) |
| Ingestion: | Oral - Rat LD50 - Lethal dose, 50 percent kill: 10700 uL/kg [Details of toxic effects not reported other than lethal dose value] Oral - Rat LD50 - Lethal dose, 50 percent kill: 13600 mg/kg [Behavioral - Somnolence (general depressed activity) Lungs, Thorax, or Respiration - Dyspnea Nutritional and Gross Metabolic - Weight loss or decreased weight gain] Oral - Rat LD50 - Lethal dose, 50 percent kill: 13.6 gm/kg [Details of toxic effects not reported other than lethal dose value] Oral - Rat LD50 - Lethal dose, 50 percent kill: 11.4 gm/kg [Details of toxic effects not reported other than lethal dose value] Oral - Rat LD50 - Lethal dose, 50 percent kill: 30 gm/kg [Behavioral - Somnolence (general depressed activity) Lungs, Thorax, or Respiration - Dyspnea Nutritional and Gross Metabolic - Weight loss or decreased weight gain] Oral - Rat LD50 - Lethal dose, 50 percent kill: 30 gm/kg [Details of toxic effects not reported other than lethal dose value] Oral - Rat LD50 - Lethal dose, 50 percent kill: >1 gm/kg [Details of toxic effects not reported other than lethal dose value] Oral - Rat LD50 - Lethal dose, 50 percent kill: 11400 mg/kg [Behavioral - Somnolence (general depressed activity) Lungs, Thorax, or Respiration - Dyspnea Nutritional and Gross Metabolic (RTECS) |

SECTION 12 : ECOLOGICAL INFORMATION

Environmental Fate: No environmental information found for this product.

SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

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

RCRA Number: Not determined.

SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name: Non regulated.

DOT UN Number: Not applicable.

DOT Hazard Class: Not applicable.

DOT Packing Group: Not applicable.

IATA Shipping Name: Non regulated.

SECTION 15 : REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product:

Bisphenol A diglycidyl ether resin :

TSCA Inventory Status: Listed

Canada DSL: Listed

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

WHMIS Pictograms:



SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard: 2*

HMIS Fire Hazard: 1

HMIS Reactivity: 1

HMIS Personal Protection: X

| | |
|---------------------|----|
| Health Hazard | 2* |
| Fire Hazard | 1 |
| Reactivity | 1 |
| Personal Protection | X |

* Chronic Health Effects

SDS Revision Date: July 25, 2015

MSDS Revision Notes: GHS Update

MSDS Author: Actio Corporation

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

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Component B - SDS

SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name: **ANCA MINE 1767 CURING AGENT**

Other means of identification:

Recommended use of the chemical and restrictions on use:

Chemical manufacturer address and telephone number:

Manufacturer Name: ITW

Address: 30 Endicott Street
Danvers, MA 01923

General Phone Number: (978) 777-1100

Emergency phone number:

Emergency Phone Number: (800) 424-9300

CHEMTREC: For emergencies in the US, call CHEMTREC: 800-424-9300

SECTION 2 : HAZARD(S) IDENTIFICATION

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

GHS Pictograms:



Signal Word: DANGER.

GHS Class: Serious Eye Damage, Category 1.
Skin corrosion, Category 1.
Reproductive toxicity, Category 2.
Skin Sensitization, Category 1.
Acute Dermal Toxicity, Category 4.
Acute Oral Toxicity, Category 4.

Hazard Statements: H318 - Causes serious eye damage.
H314 - Causes severe skin burns and eye damage.
H361 - Suspected of damaging fertility or the unborn child.
H317 - May cause an allergic skin reaction.
H312 - Harmful in contact with skin.
H302 - Harmful if swallowed.

Precautionary Statements: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P310 - Immediately call a POISON CENTER or doctor/physician.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P321 - P330 - Rinse mouth.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P363 - Wash contaminated clothing before reuse.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

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

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

Potential Health Effects:

Eye: Corrosive. Will cause eye burns, permanent tissue damage, and blindness.

Skin: Contact causes severe skin irritation and possible burns. may cause permanent skin damage. Allergic reactions are possible.
May cause skin sensitization, an allergic reaction, which becomes evident on reexposure to this material.

Inhalation: May cause severe respiratory system irritation.

Ingestion: Harmful if swallowed. Corrosive to the gastrointestinal tract.

Chronic Health Effects: Prolonged skin contact causes burns.
Repeated or prolonged inhalation may cause toxic effects.

Signs/Symptoms: Depending on solution concentration, material may be corrosive to skin, mucous membranes and eyes. Vapors may cause respiratory irritation.

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 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

| Chemical Name | CAS# | Ingredient Percent | EC Num. |
|----------------------|------------|-----------------------|---------|
| Nonylphenol | 25154-52-3 | 47.5 - 52.5 by weight | |
| Aminoethylpiperazine | 140-31-8 | 47.5 - 52.5 by weight | |

SECTION 4 : FIRST AID MEASURES

Description of necessary measures:

Eye Contact: Immediately flush eye(s) with plenty of water. Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour.

Skin Contact: Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without

delay Initiate and maintain continuous irrigation until the patient receives medical care If medical care is not promptly available, continue to irrigate for one hour

| | |
|-------------|---|
| 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. |

Most important symptoms/effects, acute and delayed:

Other First Aid: Eye disease Skin disorders and allergies

Indication of immediate medical attention and special treatment needed:

Note to Physicians: Application of corticosteroid cream has been effective in treating skin irritation

SECTION 5 : FIRE FIGHTING MEASURES

Suitable and unsuitable extinguishing media:

Suitable Extinguishing Media: Alcohol resistant foam, carbon dioxide, dry chemical, dry sand, and limestone powder

Unsuitable extinguishing media: Water or foam may cause frothing.

Specific hazards arising from the chemical:

Hazardous Combustion Byproducts: Burning produces noxious and toxic fumes.

Unusual Fire Hazards: May generate ammonia gas. May generate toxic nitrogen oxide gases. Use of water may result in the formation of very toxic aqueous solutions. Incomplete combustion may form carbon monoxide. Downstream personnel must be evacuated.

Special protective equipment and precautions for fire-fighters:

Protective Equipment: As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

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.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personnel Precautions: Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.

Environmental precautions:

Environmental Precautions: Avoid runoff into storm sewers, ditches, and waterways.

Methods and materials for containment and cleaning up:

Spill Cleanup Measures: 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. Corrosive. Avoid personal contact and breathing vapors or mists. Ventilate area. Use proper personal protective equipment as listed in Section 8.

Reference to other sections:

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

SECTION 7 : HANDLING and STORAGE

Precautions for safe handling:

Handling: 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. When using, do not eat, drink or smoke.

Hygiene Practices: Wash thoroughly after handling.

Special Handling Procedures: Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product.

Conditions for safe storage, including any incompatibilities:

Storage: 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.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Appropriate engineering controls:

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

Individual protection measures:

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

Skin Protection Description: Chemical-resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing.

Hand Protection Description: Neoprene gloves. Butyl rubber. Nitrile rubber. Impervious gloves.

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

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

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

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

Physical State Appearance: Liquid.

Color: Amber.

Odor: Ammonia like fishy.

Boiling Point: >392°F (200°C)

Melting Point: Not determined.

Specific Gravity: 0.97

Solubility: completely miscible.

Vapor Density: >1 (air = 1)

Vapor Pressure: <1 mmHg @70°F

Percent Volatile: 0

Evaporation Rate: <1 (butyl acetate = 1)

pH: alkaline

Molecular Formula: Mixture

Molecular Weight: Mixture

Flash Point: 213.8°F (101°C)

Flash Point Method: Closed Cup.

Lower Flammable/Explosive Limit: Not determined.

Upper Flammable/Explosive Limit: Not determined.

Auto Ignition Temperature: Not determined.

VOC Content: 0 g/L

9.2. Other information:

Percent Solids by Weight 100

SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:

Chemical Stability: Stable under normal temperatures and pressures.

Possibility of hazardous reactions:

Hazardous Polymerization: Not reported.

Conditions To Avoid:

Conditions to Avoid: Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Product may slowly corrode copper, aluminum, zinc and galvanized surfaces.

Incompatible Materials:

Incompatible Materials: Oxidizing agents, mineral acids, organic acids (i.e. acetic acid, citric acid, etc.) sodium hypochlorite, reactive metals (e.g. sodium, calcium, zinc, etc.), materials reactive with hydroxyl compounds. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reactions with peroxides may result in

violent decomposition of peroxide possibly creating an explosion.

Hazardous Decomposition Products:

Special Decomposition Products: Nitric acid , Oxides of carbon and nitrogen, aldehydes and ammonia. Nitrogen oxide can react with water vapors to form corrosive nitric acid. Flammable hydrocarbon fragments.

SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Nonylphenol :

Skin: Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: 2140 uL/kg [Details of toxic effects not reported other than lethal dose value]
Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: 2140 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

Ingestion: Oral - Rat LD50 - Lethal dose, 50 percent kill: 580 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

Aminoethylpiperazine :

Eye: Administration into the eye - Rabbit Standard Draize test: 20 mg/24H [Moderate] (RTECS)

Skin: Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: 880 uL/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

Ingestion: Oral - Rat LD50 - Lethal dose, 50 percent kill: 2140 uL/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:

Ecotoxicity: No ecotoxicity data was found for the product.

Environmental Fate: No environmental information found for this product.

SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

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

SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name: Refer to Bill of Lading

DOT UN Number: Refer to Bill of Lading

SECTION 15 : REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product:

Nonylphenol :

TSCA Inventory Status: Listed

Canada DSL: Listed

Aminoethylpiperazine :

TSCA Inventory Status: Listed

Canada DSL: Listed

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

WHMIS Pictograms:



SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard: 3*

HMIS Fire Hazard: 1

HMIS Reactivity: 0

| | |
|---------------|----|
| Health Hazard | 3* |
| Fire Hazard | 1 |
| Reactivity | 0 |

HMIS Personal Protection: X

| | |
|---------------------|---|
| Personal Protection | X |
|---------------------|---|

* Chronic Health Effects

SDS Revision Date: July 25, 2015

MSDS Revision Notes: GHS Update

SDS Format: In accordance to OSHA GHS 1910.1200

MSDS Author: Actio Corporation

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