

## KIT - SAFETY DATA SHEET

Product identifier used on the label:

Kit Name: **DEVCON® Brushable Ceramic red**  
Stock No.: 11760

Other means of identification:

Recommended use of the chemical and restrictions on use:

Chemical manufacturer address and telephone number:

Manufacturer Name: ITW Performance Polymers  
Address: 30 Endicott Street  
Danvers, MA 01923

| Component list        |                             |
|-----------------------|-----------------------------|
| Component A           | BRUSHABLE CERAMIC RED RESIN |
| Component B           | CC 4000 Hardener (Modified) |
| Kit SDS Revision Date | 07/30/2015                  |

## Component A - SDS

### SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name: **BRUSHABLE CERAMIC RED RESIN**

Other means of identification:

Synonyms: None.

Recommended use of the chemical and restrictions on use:

Product Use/Restriction: Not applicable.

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 Irritation. Category 2.  
Skin Sensitization. category 1.  
Specific Target Organ Toxicity - STOT, Single Exposure SE. Category 3.

Hazard Statements:

H319 - Causes serious eye irritation.  
H315 - Causes skin 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).  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
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:

**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.

**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 | 40 - 50 by weight  |         |
| Aluminum oxide                             | 1344-28-1  | 40 - 50 by weight  |         |
| 1,4-Cyclohexanedimethanol Diglycidyl Ether | 14228-73-0 | 1 - 10 by weight   |         |
| Amorphous silicon dioxide                  | 67762-90-7 | 1 - 10 by weight   |         |

**SECTION 4 : FIRST AID MEASURES**

Description of necessary 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**

Suitable and unsuitable extinguishing media:

**Suitable Extinguishing Media:** Use carbon dioxide (CO2) or dry chemical when fighting fires involving this material.

**Unsuitable extinguishing media:** Water or foam may cause frothing.

**Unusual Fire Hazards:** Sealed containers at elevated temperatures may rupture 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:**

**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:**

**Personal 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. 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.

**Hygiene Practices:** Wash thoroughly after handling.

**Special Handling Procedures:** Provide appropriate ventilation/ respiratory protection when removing cured product (see Section 10).

**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.

## SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

**EXPOSURE GUIDELINES:**

**Aluminum oxide :**

**Guideline OSHA:** PEL-TWA: 5 mg/m<sup>3</sup> Respirable fraction (R)  
PEL-TWA: 15 mg/m<sup>3</sup> Total particulate/dust (T)

**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:** 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.

**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:       | Viscous. Liquid.          |
| Color:                           | Red                       |
| Odor:                            | Slight. odor.             |
| Boiling Point:                   | >500°F (260°C)            |
| Melting Point:                   | Not determined.           |
| Specific Gravity:                | 1.8                       |
| Solubility:                      | negligible.               |
| Vapor Density:                   | >1 (air = 1)              |
| Vapor Pressure:                  | 0.03 mmHg @171°F          |
| Percent Volatile:                | <0.1                      |
| 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-Martens Closed Cup |
| Lower Flammable/Explosive Limit: | Not determined.           |
| Upper Flammable/Explosive Limit: | Not determined.           |
| Auto Ignition Temperature:       | Not determined.           |
| VOC Content:                     | <50 g/L                   |
| <u>9.2. Other information:</u>   |                           |
| Percent Solids by Weight         | >99.9                     |

**SECTION 10 : STABILITY and REACTIVITY**Chemical Stability:

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

Possibility of hazardous reactions:

**Hazardous Polymerization:** Sealed containers at elevated temperatures may rupture 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

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).

Hazardous Decomposition Products:

**Special Decomposition Products:** Carbon monoxide, Carbon dioxide  
Aldehydes, Formaldehyde  
Oxides of phosphorus and sulfur  
Flammable hydrocarbon fragments  
Uncontrolled exothermic reactions may cause release of phenolics, and carbon monoxide

**SECTION 11 : TOXICOLOGICAL INFORMATION**TOXICOLOGICAL INFORMATION:Bisphenol A diglycidyl ether resin :

**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

### 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.  
**RCRA Number:** Not determined.

## 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  
**IMDG UN Number :** Refer to Bill of Lading  
**IMDG Shipping Name :** Refer to Bill of Lading

## 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

#### **Aluminum oxide :**

**TSCA Inventory Status:** Listed  
**Section 313:** EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.  
**Canada DSL:** Listed

#### **1,4-Cyclohexanedimethanol Diglycidyl Ether :**

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

#### **Amorphous silicon dioxide :**

**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:**



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: March 08, 2018  
 SDS Revision Notes:  
 SDS Format: In accordance to OSHA GHS 1910.1200  
 SDS Author: Actio Corporation  
 Disclaimer:

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**Component B - SDS****SECTION 1 : IDENTIFICATION**Product identifier used on the label:Product Name: **CC 4000 Hardener (Modified)**Other means of identification:

Synonyms: None.

Recommended use of the chemical and restrictions on use:

Product Use/Restriction: Not applicable.

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: Acute Inhalation Toxicity. Category 3.  
 Serious Eye Damage. category 1.  
 Skin corrosion. category 1.  
 Skin Sensitization. category 1.  
 Acute Oral Toxicity. Category 4.  
 Specific Target Organ Toxicity - STOT, Single Exposure SE. Category 3.

**Hazard Statements:**

H331 - Toxic if inhaled.  
 H318 - Causes serious eye damage.  
 H314 - Causes severe skin burns and eye damage.  
 H317 - May cause an allergic skin reaction.  
 H302 - Harmful if swallowed.  
 H335 - May cause respiratory irritation.

**Precautionary Statements:**

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.  
 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.  
 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.  
 P310 - Immediately call a POISON CENTER or doctor/physician.  
 P311 - Call a POISON CENTER or doctor/physician.  
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell.  
 P321 - Specific treatment (see ... on this label).  
 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.  
 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:****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. |
|--|-------------|--------------------|---------|
| Methyleneoxide, polymer with benzenamine, hydrogenated | 135108-88-2 | 20 - 30 by weight  |         |
| Benzyl alcohol   | 100-51-6    | 20 - 30 by weight  |         |
| Benzene-1,3-Dimethanamine                              | 1477-55-0   | 20 - 30 by weight  |         |
| Organic acid   | No Data     | 1 - 10 by weight   |         |
| 4,4'-Methylenedicyclohexanamine                        | 1761-71-3   | 1 - 10 by weight   |         |

**SECTION 4 : FIRST AID MEASURES****Description of necessary 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.

## SECTION 5 : FIRE FIGHTING MEASURES

### Suitable and unsuitable extinguishing media:

**Suitable Extinguishing Media:** Use carbon dioxide (CO<sub>2</sub>) or dry chemical when fighting fires involving this material.

**Unsuitable extinguishing media:** Water or foam may cause frothing.

### 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:

**Personal 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.

**Hygiene Practices:** Wash thoroughly after handling.

**Special Handling Procedures:** Provide appropriate ventilation/ respiratory protection when removing cured product (see Section 10).

### 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:

#### **Benzene-1,3-Dimethaneamine :**

**Guideline ACGIH:** TLV-STEL: C 0.1 mg/m<sup>3</sup>  
Skin: Yes.

### 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.



**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:** mild ammonia like.

**Boiling Point:** >400°F (204.4°C)

**Melting Point:** Not determined.

**Specific Gravity:** 1.05

**Solubility:** miscible..

**Vapor Density:** >1 (air = 1)

**Vapor Pressure:** <1 mmHg @68°F

**Percent Volatile:** 0

**Evaporation Rate:** <<1 (butyl acetate = 1)

**pH:** 10.5-11.5 @ 5 Percent Solution

**Molecular Formula:** Mixture

**Molecular Weight:** Mixture

**Flash Point:** 230°F (110°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:** 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.

### Hazardous Decomposition Products:

**Special Decomposition Products:** Carbon monoxide, Carbon dioxide, Nitrous oxide  
Nitrous oxide with Water can form corrosive nitric acid  
Ammonia  
Aldehydes  
Flammable hydrocarbon fragments  
Nitrosamine  
Organic acid vapors

## SECTION 11 : TOXICOLOGICAL INFORMATION

### TOXICOLOGICAL INFORMATION:

**Benzyl alcohol :**

**Skin:** Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: 2000 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

**Inhalation:** Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: >500 mg/m3 [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Lungs, Thorax, or Respiration - Respiratory depression] (RTECS)

**Ingestion:** Oral - Rat LD50 - Lethal dose, 50 percent kill: 1230 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Excitement Behavioral - Coma]  
Oral - Rat LD50 - Lethal dose, 50 percent kill: 1660 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Lungs, Thorax, or Respiration - Respiratory depression]  
Oral - Rat LD50 - Lethal dose, 50 percent kill: 1.5 mL/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

**Benzene-1,3-Dimethanamine :**

**Eye:** Administration into the eye - Rabbit Standard Draize test: 50 ug/24H [Severe] (RTECS)

**Skin:** Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: 2 gm/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

**Inhalation:** Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 700 ppm/1H [Sense Organs and Special Senses (Eye) - Lacrimation Lungs, Thorax, or Respiration - Respiratory depression] (RTECS)

**Ingestion:** Oral - Rat LD50 - Lethal dose, 50 percent kill: 930 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

**4,4'-Methylenebiscyclohexanamine :**

**Eye:** Administration into the eye - Rabbit Standard Draize test: 10 uL/24H [Severe] (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

**IATA Shipping Name:** Refer to Bill of Lading

**IATA UN Number:** Refer to Bill of Lading

**IMDG UN Number :** Refer to Bill of Lading

**IMDG Shipping Name :** Refer to Bill of Lading

**SECTION 15 : REGULATORY INFORMATION****Safety, health and environmental regulations specific for the product:****Methyleneoxide, polymer with benzenamine, hydrogenated :**

**TSCA Inventory Status:** Listed

**Canada DSL:** Listed

**Benzyl alcohol :**

**TSCA Inventory Status:** Listed

**Canada DSL:** Listed

**Benzene-1,3-Dimethanamine :**

**TSCA Inventory Status:** Listed

**Canada DSL:** Listed

**4,4'-Methylenebiscyclohexanamine :**

**TSCA Inventory Status:** Listed

Canada DSL:

Listed

Canadian Regulations:

WHMIS Hazard Class(es): D2B; E; D2A

WHMIS Pictograms:



**SECTION 16 : ADDITIONAL INFORMATION**

HMIS Ratings:

HMIS Health Hazard: 3\*

HMIS Fire Hazard: 1

HMIS Reactivity: 0

HMIS Personal Protection: X

|                            |           |
|----------------------------|-----------|
| <b>Health Hazard</b>       | <b>3*</b> |
| <b>Fire Hazard</b>         | <b>1</b>  |
| <b>Reactivity</b>          | <b>0</b>  |
| <b>Personal Protection</b> | <b>X</b>  |

\* Chronic Health Effects

SDS Revision Date: March 08, 2018

SDS Revision Notes:

SDS Format: In accordance to OSHA GHS 1910.1200

SDS Author: Actio Corporation

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