KIT - SAFETY DATA SHEET

Product identifier used on the label:
Kit Name: DEVCON® Ceramic Repair Putty
Stock No.: 11700

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

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>CERAMIC REPAIR RESIN</td>
</tr>
<tr>
<td>A</td>
<td>CERAMIC REPAIR HARDENER</td>
</tr>
</tbody>
</table>

Kit SDS Revision Date 02/09/2016

Component B - SDS

SECTION 1 : IDENTIFICATION

Product identifier used on the label:
Product Name: CERAMIC REPAIR 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:
Specific Target Organ Toxicity -STOT Repeated exposure RE. Category 2 (inhalation liver, nervous system).
Eye Irritation. Category 2.
Skin Irritation. Category 2.
Skin Sensitization. Category 1.
Acute Inhalation Toxicity. Category 4.
Specific Target Organ Toxicity - STOT, Single Exposure SE. Category 3.

Hazard Statements:
H373 - May cause damage to organs through prolonged or repeated exposure.
H319 - Causes serious eye irritation.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H332 - Harmful if ingested.
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.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P380 - 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.
P314 - Get medical advice/attention if you feel unwell.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P333+P313 - If skin irritation or rash occurs: 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.


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:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>Ingredient Percent</th>
<th>EC Num.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A diglycidyl ether resin</td>
<td>25068-38-6</td>
<td>40 - 50 by weight</td>
<td></td>
</tr>
<tr>
<td>Amorphous silicon dioxide</td>
<td>67762-90-7</td>
<td>1 - 10 by weight</td>
<td></td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
<td>40 - 50 by weight</td>
<td></td>
</tr>
<tr>
<td>Non hazardous ingredients</td>
<td>No Data</td>
<td>1 - 10 by weight</td>
<td></td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>1 - 10 by weight</td>
<td></td>
</tr>
<tr>
<td>Ethyl benzene</td>
<td>100-41-4</td>
<td>0.1 - 1.0 by weight</td>
<td></td>
</tr>
</tbody>
</table>

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 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:**

**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:** 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. 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.

**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 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, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use.

## SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

### EXPOSURE GUIDELINES:

**Aluminum oxide**

- **Guideline OSHA:**
  - PEL-TWA: 5 mg/m3 Respirable fraction (R)
  - PEL-TWA: 15 mg/m3 Total particulate/dust (T)

**Xylene**

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

**Ethyl benzene**

- **Guideline ACGIH:**
  - TLV-TWA: 20 ppm

- **Guideline OSHA:**
  - PEL-TWA: 100 ppm

**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

<table>
<thead>
<tr>
<th>Physical State Appearance</th>
<th>Viscous. Liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Amber.</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight. odor.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>&gt;500°F (260°C)</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.66</td>
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<tr>
<td>Solubility</td>
<td>Negligible.</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>&gt;1 (air = 1)</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Percent Volatile</td>
<td>&lt;3</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>&lt;=1 (butyl acetate = 1)</td>
</tr>
<tr>
<td>pH</td>
<td>Neutral.</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>Mixture</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>Mixture</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;250°F (121.1°C)</td>
</tr>
<tr>
<td>Flash Point Method</td>
<td>Pensky-Martens Closed Cup</td>
</tr>
<tr>
<td>Lower Flammable/Explosive Limit</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper Flammable/Explosive Limit</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto Ignition Temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>VOC Content</td>
<td>33 g/L</td>
</tr>
</tbody>
</table>

SECTION 10 : STABILITY and REACTIVITY

<table>
<thead>
<tr>
<th>Chemical Stability</th>
<th>Stable under normal temperatures and pressures.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Not reported.</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Not reported.</td>
</tr>
<tr>
<td>Conditions To Avoid</td>
<td>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.</td>
</tr>
<tr>
<td>Incompatible Materials</td>
<td>Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (especially primary and secondary aliphatic amines).</td>
</tr>
</tbody>
</table>

SECTION 11 : TOXICOLOGICAL INFORMATION

| Bisphenol A diglycidyl ether resin: |
| 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: >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)]

Xylene:
Eye: Administration into the eye - Rabbit Standard Draize test: 87 mg [Mild]
Skin: Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: >1700 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

Inhalation: Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 5000 ppm/4H [Details of toxic effects not reported other than lethal dose value] (RTECS)

Ingestion: Oral - Rat LD50 - Lethal dose, 50 percent kill: 4300 mg/kg [Liver - Other changes Kidney/Ureter/Bladder - Other changes] (RTECS)

Ethyl benzene:
Eye: Administration into the eye - Rabbit Standard Draize test: 500 mg [Severe] (RTECS)
Skin: Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: 17800 uL/kg [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: >5000 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

Inhalation: Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 55000 mg/m3/2H [Details of toxic effects not reported other than lethal dose value] (RTECS)

Ingestion: Oral - Rat LD50 - Lethal dose, 50 percent kill: 3500 mg/kg [Liver - Other changes Kidney/Ureter/Bladder - Other changes] Oral - Rat LD50 - Lethal dose, 50 percent kill: 3500 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

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

Description of waste: 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

DEVCON® Ceramic Repair Putty
Revision: 02/09/2016

Stock No. 11700

Page 5 of 12
WHMIS Pictograms:

**Bisphenol A diglycidyl ether resin:**
- TSCA Inventory Status: Listed
- Canada DSL: Listed

**Amorphous silicon dioxide:**
- 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

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

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

**California PROP 65:**
- Listed: cancer.

**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 Ratings:**

<table>
<thead>
<tr>
<th>HMIS Health Hazard</th>
<th>2*</th>
<th>Health Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS Fire Hazard</td>
<td>1</td>
<td>Fire Hazard</td>
</tr>
<tr>
<td>HMIS Reactivity</td>
<td>1</td>
<td>Reactivity</td>
</tr>
<tr>
<td>HMIS Personal Protection</td>
<td>X</td>
<td>Personal Protection</td>
</tr>
</tbody>
</table>

* Chronic Health Effects

**SDS Revision Date:** March 17, 2015
**SDS Revision Notes:** GHS Update
**SDS Format:** In accordance to OSHA GHS 1910.1200
**SDS Author:** Actio Corporation

Disclaimer:
The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. ITW Performance Polymers 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 Performance Polymers 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 Performance Polymers product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the ITW Performance Polymers product to determine whether it is fit for a particular purpose and suitable for user's method of use or application. ITW Performance Polymers 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 Performance Polymers 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 Performance Polymers.

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SECTION 1 : IDENTIFICATION

Product identifier used on the label: CERAMIC REPAIR HARDENER

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.
- Specific Target Organ Toxicity - STOT, Single Exposure SE. Category 2 (CNS, Respiratory Irritation).
- Specific Target Organ Toxicity - STOT Repeated exposure RE. Category 2 ((Oral - nervous system) (Inhalation - liver) (Dermal-epidermal tissue)).
- Germ cell mutagenicity. Category 2.
- Skin Sensitization. Category 1.

Hazard Statements:
- H318 - Causes serious eye damage.
- H314 - Causes severe skin burns and eye damage.
- H371 - May cause damage to organs.
- H373 - May cause damage to organs through prolonged or repeated exposure.
- H341 - Suspected of causing genetic defects.
- H317 - May cause an allergic skin reaction.

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.
- P264 - Wash hands thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
- 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.
- P314 - Get medical advice/attention if you feel unwell.
- P311 - IF EXPOSED OR IN瓯HERANCE, Get medical advice/attention.
- P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
- P334+P340 - 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.

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

Potential Health Effects:
- Eyes, Skin, Inhalation, Ingestion.

Eye:
- Can cause moderate irritation, burning sensation, tearing, redness, and swelling.
Skin:
Skin contact can cause irritation and allergic reaction (sensitization) in some individuals.

Inhalation:
May cause severe respiratory system irritation.

Ingestion:
Harmful if swallowed. Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.

Chronic Health Effects:
Repeated or prolonged inhalation may cause toxic effects.

Target Organs:
Eyes. Skin. Respiratory system. Digestive system.

Aggravation of Pre-Existing Conditions:
May aggravate pre-existing respiratory disorders, allergy, eczema, or skin conditions.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>Ingredient Percent</th>
<th>EC Num.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amorphous silicon dioxide</td>
<td>67762-90-7</td>
<td>10 - 20 by weight</td>
<td></td>
</tr>
<tr>
<td>Triethylenetetramine</td>
<td>112-24-3</td>
<td>1 - 10 by weight</td>
<td></td>
</tr>
<tr>
<td>Formaldehyde polymer with phenol</td>
<td>32610-77-8</td>
<td>50 - 60 by weight</td>
<td></td>
</tr>
<tr>
<td>and TETA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>1 - 10 by weight</td>
<td></td>
</tr>
<tr>
<td>Phenol</td>
<td>108-95-2</td>
<td>10 - 20 by weight</td>
<td></td>
</tr>
<tr>
<td>Aliphatic Amines</td>
<td>No Data</td>
<td>1 - 10 by weight</td>
<td></td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-6</td>
<td>0.1 - 1.0 by weight</td>
<td></td>
</tr>
</tbody>
</table>

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.

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 (CO2), dry chemical, dry sand, limestone powder.

Unsuitable extinguishing media: Water or foam may cause frothing.

Specific hazards arising from the chemical:

Hazardous Combustion Byproducts: Incomplete combustion may form carbon monoxide. Downwind personnel must be evacuated. 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. Do not allow run-off from fire fighting to enter drains or water courses.

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: 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. 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 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. Do not store near acids.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Titanium dioxide:

Guideline ACGIH: TLV-TWA: 10 mg/m3

Phenol:

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

Guideline OSHA: PEL-TWA: 5 ppm

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.

Hand Protection Description: Neoprene gloves, PVC disposable gloves, Butyl-rubber, and Nitrile rubber 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 limits 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: Paste.
**SECTION 10 : STABILITY and REACTIVITY**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild phenolic-like.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Specific Gravity</td>
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<tr>
<td>Solubility</td>
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<tr>
<td>Vapor Density</td>
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<tr>
<td>Vapor Pressure</td>
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<tr>
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</tr>
<tr>
<td>Evaporation Rate</td>
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</tr>
<tr>
<td>pH</td>
<td>Alkaline</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>Mixture</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>Mixture</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;250°F (121.1°C)</td>
</tr>
<tr>
<td>Flash Point Method</td>
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<tr>
<td>Lower Flammable/Explosive Limit</td>
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</tr>
<tr>
<td>Upper Flammable/Explosive Limit</td>
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</tr>
<tr>
<td>Auto Ignition Temperature</td>
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<tr>
<td>VOC Content</td>
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</tr>
<tr>
<td>Percent Solids by Weight</td>
<td>100</td>
</tr>
</tbody>
</table>

**SECTION 11 : TOXICOLOGICAL INFORMATION**

**Triethylenetetramine:**

- **Eye:** Administration into the eye - Rabbit Standard Draize test: 49 mg [Severe]  
  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: 805 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

- **Ingestion:** Oral - Rat LD50 - Lethal dose, 50 percent kill: 2500 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

**Titanium dioxide:**

- **Chronic Effects:** Normal application procedures for this product pose minimal hazard as to the release of respirable titanium dioxide dust, but grinding or sanding dried films of this product may yield some respirable titanium dioxide. Although IARC has classified titanium dioxide as possible carcinogenic to human (2B), their summary concludes: "No significant exposure to titanium dioxide is thought to occur during the use of products which titanium dioxide is bound to other materials". OSHA does not regulate titanium dioxide as a carcinogen. However, under 29CFR 1910.1200 the SDS must convey the fact that titanium dioxide is a potential carcinogen to rats.

- **Carcinogenicity:** Animal evidence shows that high concentrations of pigment-grade (powdered) and ultrafine titanium dioxide dust caused respiratory tract cancer in rats exposed by inhalation.

**Phenol:**

- **Devcon® Ceramic Repair Putty**  
  Stock No. 11700  
  Revision: 02/09/2016
**Eye:**
- Administration into the eye - Rabbit Standard Draize test: 5 mg [Severe]
- Administration into the eye - Rabbit Rinsed with water: 5 mg/30S [Mild] (RTECS)

**Skin:**
- Administration onto the skin - Rat LD50 - Lethal dose, 50 percent kill: 669 mg/kg [Behavioral - Tremor Kidney/Ureter/Bladder - Hematuria Skin and Appendages - Cutaneous sensitization, experimental (After topical exposure)]
- Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: 630 mg/kg [Details of toxic effects not reported other than lethal dose value]
- Administration onto the skin - Rat LD50 - Lethal dose, 50 percent kill: 1500 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

**Inhalation:**
- Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 316 mg/m3 [Details of toxic effects not reported other than lethal dose value]

**Ingestion:**
- Oral - Rat LD50 - Lethal dose, 50 percent kill: 317 mg/kg [Behavioral - Convulsions or effect on seizure threshold]
- Oral - Rat LD50 - Lethal dose, 50 percent kill: 512 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)
- Oral - Rat LD50 - Lethal dose, 50 percent kill: 1230 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Lungs, Thorax, or Respiration - Respiratory depression] (RTECS)
- Oral - Rat LD50 - Lethal dose, 50 percent kill: 1660 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Excitement Behavioral - Coma]
- Oral - Rat LD50 - Lethal dose, 50 percent kill: 1.5 mL/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

**Benzyl alcohol:**
- 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 - 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)

**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**

**Description of waste:**
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:

**Amorphous silicon dioxide:**
- TSCA Inventory Status: Listed
- Canada DSL: Listed

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

**Formaldehyde polymer with phenol and TETA:**
- TSCA Inventory Status: Listed
Canada DSL: Listed
Titanium dioxide:
TSCA Inventory Status: Listed
Canada DSL: Listed
Phenol:
TSCA Inventory Status: Listed
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
Section 313: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.
Canada DSL: Listed
Benzyl alcohol:
TSCA Inventory Status: Listed
Canada DSL: Listed
Canadian Regulations. WHMIS Hazard Class(es): D2B; D2A
WHMIS Pictograms:

SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

<table>
<thead>
<tr>
<th>HMIS Health Hazard</th>
<th>2*</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS Fire Hazard</td>
<td>1</td>
</tr>
<tr>
<td>HMIS Reactivity</td>
<td>1</td>
</tr>
<tr>
<td>HMIS Personal Protection</td>
<td>X</td>
</tr>
</tbody>
</table>

SDS Revision Date: July 25, 2015
SDS Revision Notes: GHS Update
SDS Author: Actio Corporation

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