Component A - SDS

SECTION 1 : IDENTIFICATION

Product identifier used on the label: ULTRA QUARTZ HARDENER

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 Performance Polymers
Address: 30 Endicott Street
          Danvers, MA 01923
General Phone Number: (978) 777-1100
Emergency Phone Number: (800) 424-9300
CHEMTREC: For emergencies in the US, call CHEMTREC: 800-424-9300

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.
Reproductive toxicity. Category 2.
Skin Sensitization. category 1.

Hazard Statements:
H331 - Toxic if inhaled.
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.
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.
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.
P308+P313 - IF EXPOSED OR CONCERNED: Get medical advice/attention.
P310 - Immediately call a POISON CENTER or doctor/physician.
P311 - Call a POISON CENTER or doctor/physician.
P312 - 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.
P401 - 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:
<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>Ingredient Percent</th>
<th>EC Num.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salicylic acid</td>
<td>69-72-7</td>
<td>1 - 10 by weight</td>
<td></td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-6</td>
<td>40 - 50 by weight</td>
<td></td>
</tr>
<tr>
<td>Nonylphenol</td>
<td>25154-52-3</td>
<td>15 - 18 by weight</td>
<td></td>
</tr>
<tr>
<td>Aminoethylpiperazine</td>
<td>140-31-8</td>
<td>15 - 18 by weight</td>
<td></td>
</tr>
<tr>
<td>Isophorone diamine</td>
<td>2855-13-2</td>
<td>12 - 14 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.

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. 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 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:

Guideline Info: Exposure limits are not established

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.
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. 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**: Viscous. Amber.
- **Odor**: Fishy.
- **Boiling Point**: >392°F (200°C)
- **Melting Point**: Not determined.
- **Specific Gravity**: 0.99
- **Solubility**: APPRECIABLE.
- **Vapor Density**: >1 (air = 1)
- **Vapor Pressure**: < 10.34 mmHg @70°F
- **Percent Volatile**: 0
- **Evaporation Rate**: <<1 (butyl acetate = 1)
- **pH**: alkaline
- **Molecular Formula**: Mixture
- **Molecular Weight**: Mixture
- **Flash Point**: >199.9°F (93.2°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**: Stable under normal temperatures and pressures.
- **Possibility of hazardous reactions**: Not reported.
- **Hazardous Polymerization**: Not reported.
- **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.

SECTION 11: TOXICOLOGICAL INFORMATION

- **Salicylic acid**

  **Skin**: Administration onto the skin – Rat LD50 – Lethal dose, 50 percent kill: > 2 gm/kg [Liver – Other changes Skin and Appendages – Hair] (RTECS)
**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)

**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] (RTECS)
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)

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**SECTION 12: ECOLOGICAL INFORMATION**

**Ecotoxicity:**
No ecotoxicity data was found for the product.

**Environmental Fate:**
No environmental information found for this product.

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**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.

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**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

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**SECTION 15: REGULATORY INFORMATION**

**Safety, health and environmental regulations specific for the product:**

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

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

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

**Aminoethylpiperazine**:
SECTION 1 : IDENTIFICATION

Product identifier used on the label: ULTRA QUARTZ 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

DEVCON® Ultra Quartz™
Revision:: 11/30/2015
Stock No. 13550
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.
- 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.
- P337+P313 - If eye irritation persists: Get medical advice/attention.
- 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+P405 - Wear protective gloves/protective clothing/eye protection/face protection.
- P404+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.

Hazard 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>75 - 83 by weight</td>
<td></td>
</tr>
<tr>
<td>Alkyl Glycidyl Ether</td>
<td>68609-97-2</td>
<td>18 - 22 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:

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 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.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Guideline Info:
Exposure limits are not established

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.
PHYSICAL AND CHEMICAL PROPERTIES:

Physical State Appearance: Viscous Liquid.

Odor: Slight odor.

Boiling Point: >500°F (260°C)

Melting Point: Not determined.

Specific Gravity: 1.1-1.3

Solubility: negligible.

Vapor Density: >1 (air = 1)

Vapor Pressure: 0.03 mmHg @171°F

Percent Volatile: 0

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

pH: Neutral.

Molecular Formula: Mixture

Molecular Weight: Mixture

Flash Point: >300°F (148.8°C)

Flash Point Method: Estimated.

Lower Flammable/Explosive Limit: Not determined.

Upper Flammable/Explosive Limit: Not determined.

Auto Ignition Temperature: Not determined.

VOC Content: 0 g/L

Percent Solids by Weight: 100

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.

Possibility of hazardous reactions: Not reported.

Conditions to Avoid:

Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Heating resin above 300 F in the presence of air may cause slow oxidative decomposition.

Incompatible Materials:

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

SECTION 11: TOXICOLOGICAL INFORMATION

Bisphenol A diglycidyl ether resin:

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 - Rat 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)
**WHMIS Pictograms:**

**Ingestion:**
- Oral - Rat LD50 - Lethal dose, 50 percent kill: 10700 µL/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 [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: 17100 mg/kg [Behavioral - Somnolence (general depressed activity) Lungs, Thorax, or Respiration - Dyspnea Nutritional and Gross Metabolic (RTECS)]
- Oral - Rat LD50 - Lethal dose, 50 percent kill: 19.2 mL/kg [Details of toxic effects not reported other than lethal dose value]

**SECTION 12 : ECOLOGICAL INFORMATION**

**Ecotoxicity:**
- No ecotoxicity data was found for the product.

**Environmental Fate:**
- No environmental information found for this product.

**SECTION 13 : DISPOSAL CONSIDERATIONS**

**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

**Alkyl Glycidyl Ether:**
- 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:**
SECTION 1 : IDENTIFICATION

Product identifier used on the label: ULTRA QUARTZ SURFACE PRIMER HARDENER

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.
Skin corrosion/irritation, category 1.
Inhalation - liver (Dermal-epidermal tissue).
Germ cell mutagenicity, Category 2.
Hazard Statements:
H331 - Toxic if inhaled.
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.
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.
P301+P330+P311 - 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+P311 - IF EXPOSED or concerned: Call a POISON CENTER/donor/... 
P308+P313 - IF EXPOSED or concerned: Get medical advice/attention.
P310 - Immediately call a POISON CENTER or doctor/physician.
P311 - Call a POISON CENTER or doctor/physician.
P313 - Get medical advice/attention if you feel unwell.
P314 - Specific treatment (see ... on this label).
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.
Corneal edema may give rise to a perception of “blue haze” or “fog” around lights. Exposed individuals may see rings around bright lights. This effect is temporary and has no known residual effect. Product vapor can cause glaucoma (corneal edema) when absorbed into the tissue of the eye from the atmosphere.

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:

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.

Notes: Fifty percent of mixture consists of ingredients of unknown acute toxicity.

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>Trade secret.</td>
<td>N/A</td>
<td>&gt;50 by weight</td>
<td></td>
</tr>
<tr>
<td>Trimethylhexamethylenediamine</td>
<td>25620-58-0</td>
<td>&lt;35 by weight</td>
<td></td>
</tr>
<tr>
<td>Phenol</td>
<td>108-95-2</td>
<td>&lt;15 by weight</td>
<td>604-001-00-2</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

Description of necessary measures:

Eye Contact: 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 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.

Most important symptoms/effects, acute and delayed:

Other First Aid: Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat. Eye disease. Skin disorders and Allergies. Asthma. Kidney disorders. Liver disorders.

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:


Byproducts: 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:

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. Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Suspected cancer-causing nitrosamines could be formed. 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. Do not store near acids.

Specific end use(s): Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Phenol:
Guideline ACGIH: 5 ppm
Skin: Yes.
TLV-TWA: 5 ppm
Guideline OSHA: 5 ppm
Skin: Yes.
PEL-TWA: 5 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: 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 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.
Boiling Point: >212°F (100°C)
Melting Point: Not determined.
Specific Gravity: 1.0
Solubility: slightly soluble.
Vapor Density: Not determined.
Vapor Pressure: < 20.7 mmHg @70°F
Percent Volatile: Not determined.
Evaporation Rate: Not determined.
pH: alkaline
Molecular Formula: Mixture
Molecular Weight: Mixture
Flash Point: 255°F (123.8°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: Not determined.

9.2. Other information:
Percent Solids by Weight: Not determined.
SECTION 10: STABILITY and REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.

Possibility of hazardous reactions: Not reported.

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: Reactive metals (e.g. sodium, calcium, zinc etc.). Materials reactive with hydroxyl compounds. CAUTION! N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrates or atmospheres with high nitrous oxide concentrations. Nitrous acid and other nitrosating agents. Organic acids (i.e. acetic acid, citric acid etc.). Mineral acids. Sodium hypochlorite. Oxidizing agents. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.

Hazardous Decomposition Products: Nitric acid, Ammonia, Nitrogen oxides (NOx), Nitrogen oxide can react with water vapors to form corrosive nitric acid. Carbon monoxide, carbon dioxide (CO2), aldehydes, flammable hydrocarbon fragments, and nitrosamine. Ammonia. Chlorine

SECTION 11: TOXICOLOGICAL INFORMATION

Phenol

Acute Toxicity: Absorption of phenolic solutions through the skin may be very rapid and can cause damage to the kidneys, liver, pancreas and spleen, and edema of the lungs., Chronic exposures can cause liver and kidney damage.

IARC: IARC: Group 3: Undeclassifiable as to carcinogenicity to humans.

RTECS Number: SJ3325000

Eye: Eye - Rabbit Standard Draize test.: 5 mg
      Eye - Rabbit Rinsed with water.: 5 mg/30S

Skin: Administration onto the skin - Rat : 669 mg/kg [Behavioral - Tremor Kidney/Ureter/Bladder - Hematuna Skin and Appendages - Cutaneous sensitization, experimental (After topical exposure)]
      Administration onto the skin - Mouse : 329 mg/kg/30M [Skin and Appendages - Primary irritation (After topical exposure) Biochemical - Metabolism (Intermediate) - Other Biochemical - Metabolism (Intermediate) - Effect on inflammation or mediation of inflammation]
      Administration onto the skin - Rabbit : 630 mg/kg [Details of toxic effects not reported other than lethal dose value]
      Administration onto the skin - Rat : 1500 mg/kg [Details of toxic effects not reported other than lethal dose value]
      Administration onto the skin - : 400 uL/30S
      Administration onto the skin - Rabbit : 535 mg
      Administration onto the skin - Rabbit : 100 mg
      Administration onto the skin - Mouse : 16 gm/kg/40W (Intermittent) [Tumorigenic - carcinogenic by RTECS criteria Skin and Appendages - Tumors]
      Administration onto the skin - Mouse : 4000 mg/kg/24W (Intermittent) [Tumorigenic - neoplastic by RTECS criteria Skin and Appendages - Tumors]

Inhalation: Inhalation - Mouse LC50: 177 mg/m3 [Details of toxic effects not reported other than lethal dose value]
            Inhalation - Rat LC50: 316 mg/m3 [Details of toxic effects not reported other than lethal dose value]
            Inhalation - Mouse LC50: 177 mg/m3/4H [Details of toxic effects not reported other than lethal dose value]
            Inhalation - Rat LC50: 316 mg/m3/4H [Details of toxic effects not reported other than lethal dose value]

Ingestion: Oral - Rat LD50: 317 mg/kg [Behavioral - Convulsions or effect on seizure threshold]
           Oral - Mouse LD50: 270 mg/kg [Details of toxic effects not reported other than lethal dose value]
           Oral - Rat LD50: 512 mg/kg [Details of toxic effects not reported other than lethal dose value]

Ingestion: LD50 >2,000 mg/kg, Rabbit, estimated

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.

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:

Trimethylhexamethylenediamine:
TSCA Inventory Status: Listed
Canada DSL: Listed

Phenol:
TSCA Inventory Status: Listed
SARA:
EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.
Section 302 EHS:
EPCRA (SARA Title III) Section 302 (40 CFR Part 355) Extremely Hazardous Substances (EHS) Threshold Planning Quantity (TPQ) in pounds.: 500/10,000 Lbs.
Section 304 RQ:
EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances (EHS) Reportable Quantities (RQ) in pounds.: 1,000 Lbs.
New Jersey: Listed: NJ Hazardous List; Substance Number: 1487
Massachusetts: Listed: Massachusetts Oil and Hazardous List
Pennsylvania: Listed
Canada DSL: Listed
EC Number: 604-001-00-2
Canadian Regulations: WHMIS Hazard Class(es): D2B, E, D2A
All components of this product are on the Canadian Domestic Substances List.

SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:
HMIS Health Hazard: 3*
HMIS Fire Hazard: 1
HMIS Reactivity: 0
HMIS Personal Protection: X

Health Hazard 3*
Fire Hazard 1
Reactivity 0
Personal Protection X

* Chronic Health Effects

SDS Revision Date: November 30, 2015
SDS Revision Notes: GHS Update
SDS Format: In accordance to OSHA GHS 1910.1200
SDS Author: Actio Corporation
SECTION 1 : IDENTIFICATION

Product identifier used on the label: ULTRA QUARTZ CRYSTAL

Other means of identification: 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: Specific Target Organ Toxicity -STOT Repeated exposure RE. category 1 (Inhalation, Lung).
Cardiogenicity. Category 1A.

Hazard Statements: H372 - Causes damage to organs through prolonged or repeated exposure.
H350 - May cause cancer.

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.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P314 - Get medical advice/attention if you feel unwell.
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: May cause irritation.
Skin: May cause irritation.
Inhalation: Prolonged or excessive inhalation may cause respiratory tract irritation.
Ingestion: May be harmful if swallowed. May cause vomiting.

Chronic Health Effects: Prolonged or repeated contact may cause skin irritation.

Signs/Symptoms: Overexposure may cause headaches and dizziness.
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>Limestone</td>
<td>1317-65-3</td>
<td>&gt;90 by weight</td>
<td></td>
</tr>
<tr>
<td>Crystalline silica</td>
<td>14808-60-7</td>
<td>&lt;10 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. 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:** This product will not burn. May be used to extinguish fires.

**Unsuitable extinguishing media:** None.

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:** Shovel or sweep up for re-use or disposal. Avoid creating dusty conditions. 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 dust. Ventilate area. Use proper personal protective equipment as listed in Section 8.

**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 dust or particulates.

**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.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

**Crystalline silica:**

**Guideline ACGIH:**
0.025 mg/m³

**TLV-TWA:** 0.025 mg/m³ Respirable fraction (R)

**Guideline OSHA:**
\[10 \text{ mg/m}^3]/([% \text{ SiO}_2] + 2)

**Appropriate 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 a dust/mist filter 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.

**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:** Powder.

**Color:** White to gray

**Odor:** Odorless.

**Odor Threshold:** Not applicable.

**Boiling Point:** Not applicable.

**Melting Point:** Not applicable.

**Specific Gravity:** 2.60 - 2.84

**Solubility:** negligible.

**Vapor Density:** Not determined.

**Vapor Pressure:** Not determined.

**Percent Volatile:** 0

**Evaporation Rate:** Not determined.

**pH:** Not determined.

**Flash Point:** Not determined.

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

**Possibility of hazardous reactions:**

Stock No. 13550

DEVCON® Ultra Quartz™

Revision: 11/30/2015
WHMIS Pictograms:

**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

**Crystalline silica:**

**RTECS Number:** VV7330000

**Carcinogenicity:**

- IARC: Group 1: Carcinogenic to humans.
- NTP: Reasonably anticipated to be a human carcinogen.

### 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:** Non regulated.

**DOT UN Number:** Not applicable.

**DOT Hazard Class:** Not applicable.

**DOT Packing Group:** Not applicable.

### SECTION 15: REGULATORY INFORMATION

**Safety, health and environmental regulations specific for the product:**

**Limestone:**

**TSCA Inventory Status:** Listed

**Crystalline silica:**

**TSCA Inventory Status:** Listed

**Massachusetts:** Listed

**Pennsylvania:** Listed

**Canada DSL:** Listed

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

### SECTION 16: ADDITIONAL INFORMATION

**HMIS Ratings:**
Component E - SDS

SECTION 1 : IDENTIFICATION

Product identifier used on the label: ULTRA QUARTZ SURFACE PRIMER RESIN

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.
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>78 - 82 by weight</td>
<td>603-074-00-8</td>
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<tr>
<td>Alkyl Glycidyl Ether</td>
<td>68609-97-2</td>
<td>18 - 22 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. 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 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.

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: 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.

Odor: Slight. odor.
Boiling Point:  >500°F (260°C)
Melting Point:  Not determined.
Specific Gravity:  1.1-1.3
Solubility:  negligible.
Vapor Density:  >1 (air = 1)
Vapor Pressure:  0.03 mmHg @171°F
Percent Volatile:  0
Evaporation Rate:  <<1 (butyl acetate = 1)
pH:  Neutral.
Molecular Formula:  Mixture
Molecular Weight:  Mixture
Flash Point:  >300°F (148.8°C)
Flash Point Method:  Estimated.
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:  Stable under normal temperatures and pressures.
Possibility of hazardous reactions:  Not reported.
Conditions to Avoid:  Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Heating resin above 300 F in the presence of air may cause slow oxidative decomposition.
Incompatible Materials:  Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (especially primary and secondary aliphatic amines).

SECTION 11 : TOXICOLOGICAL INFORMATION

Bisphenol A diglycidyl ether resin:
RTCEC Number:  SL6480000
Skin:  Administration onto the skin - Rat LD : >2 gm/kg [Nutritional and Gross Metabolic - Other changes]

Alkyl Glycidyl Ether:
RTCEC Number:  RR0562500
Skin:  Administration onto the skin - Rabbit : 500 uL/24H
Ingestion:  Oral - Rat LD50 : 17100 mg/kg [Details of toxic effects not reported other than lethal dose value]

SECTION 12 : ECOLOGICAL INFORMATION

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

SECTION 13 : DISPOSAL CONSIDERATIONS

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: None.

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
- EC Number: 603-074-00-8

**Alkyl Glycidyl Ether :**
- TSCA Inventory Status: Listed
- Canada DSL: Listed

**Canadian Regulations.**
All components of this product are on the Canadian Domestic Substances List.

**WHMIS Pictograms:**

SECTION 16 : ADDITIONAL INFORMATION

**HMIS Ratings:**

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* Chronic Health Effects

SDS Revision Date: May 19, 2015
SDS Revision Notes: GHS Update
SDS Format: In accordance to OSHA GHS 1910.1200
SDS Author: Actio Corporation

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