**KIT - SAFETY DATA SHEET**

**Product identifier used on the label:**

<table>
<thead>
<tr>
<th>Kit Name</th>
<th>Wear Guard Ultra Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock No.:</td>
<td>11475</td>
</tr>
</tbody>
</table>

**Other means of identification:**

**Recommended use of the chemical and restrictions on use:**

**Chemical manufacturer address and telephone number:**

<table>
<thead>
<tr>
<th>Manufacturer Name:</th>
<th>ITW Performance Polymers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>30 Endicott Street</td>
</tr>
<tr>
<td></td>
<td>Danvers, MA 01923</td>
</tr>
</tbody>
</table>

**Component list**

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component C</td>
<td>Wear Guard Ultra Beads</td>
</tr>
<tr>
<td>Component B</td>
<td>Wear Guard Ultra Resin</td>
</tr>
<tr>
<td>Component E</td>
<td>Wear Guard Ultra Hardener</td>
</tr>
<tr>
<td>Component D</td>
<td>WEAR GUARD™ EPOXY PRIMER RESIN</td>
</tr>
<tr>
<td>Component A</td>
<td>WEAR GUARD™ EPOXY PRIMER HARDENER</td>
</tr>
<tr>
<td>Kit SDS Revision Date</td>
<td>11/30/2015</td>
</tr>
</tbody>
</table>

---

**Component C - SDS**

**SECTION 1 : IDENTIFICATION**

**Product identifier used on the label:**

| Product Name: | Wear Guard Ultra Beads |

**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:**

<table>
<thead>
<tr>
<th>Manufacturer Name:</th>
<th>ITW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>30 Endicott Street</td>
</tr>
<tr>
<td></td>
<td>Danvers, MA 01923</td>
</tr>
<tr>
<td>General Phone Number:</td>
<td>(978) 777-1100</td>
</tr>
</tbody>
</table>

| 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):**

<table>
<thead>
<tr>
<th>GHS Pictograms:</th>
</tr>
</thead>
</table>

| Signal Word: | WARNING. |
| GHS Class:   | Acute Inhalation Toxicity, Category 4. |
| Hazard Statements: | H332 - Harmful if inhaled. |
Precautionary Statements:
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 - Use only outdoors or in a well-ventilated area.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.

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.


Aggravation of Pre-Existing Conditions: None generally recognized.

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>Aluminum oxide</td>
<td>1344-28-1</td>
<td>60 - 100 by weight</td>
<td></td>
</tr>
<tr>
<td>Silicon dioxide, aluminum oxide, and magnesium oxide.</td>
<td>N/A</td>
<td>10 - 30 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.

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

Methods and materials for containment and cleaning up:

Spill Cleanup Measures: Non hazardous material. Follow local procedures.

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.

Conditions for safe storage, including any incompatibilities:

Storage: Store in a cool, dry, well ventilated area away from sources of heat and incompatible materials. Keep container tightly closed when not in use.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Aluminum oxide:
Guideline ACGIH: 10 mg/m³ TLV-TWA: 10 mg/m³
Guideline OSHA: 5 mg/m³ PEL-TWA: 15 mg/m³ Total particulate/dust (T)
PEL-TWA: 5 mg/m³ Respirable fraction (R)

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: Solid.
Color: White, dark brown.
Odor: Odorless.
Boiling Point: 4000°F
Melting Point: 3700°F
Specific Gravity: 3.9
Solubility: Negligible.
Vapor Density: Not determined.
Vapor Pressure: Not determined.
Percent Volatile: Not determined.
Evaporation Rate: Not determined.
PH: Not applicable.
Molecular Formula: Mixture
Molecular Weight: Mixture
Flash Point: Not determined.
Lower Flammable/Explosive Limit: Not applicable.
Upper Flammable/Explosive Limit: Not applicable.
Auto Ignition Temperature: Not determined.
VOC Content: Not determined.

9.2 Other information:
SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:
- Stable under normal temperatures and pressures.
Possibility of hazardous reactions:
- Not reported.
Conditions To Avoid:
- None known.
Incompatible Materials:
- Oxidizing agents. Strong acids and alkalis.

SECTION 11 : TOXICOLOGICAL INFORMATION

Aluminum oxide:
- RTECS Number: BD1200000

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: 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:
Aluminum oxide:
- TSCA Inventory Status: Listed
- SARA: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.
- New Jersey: Listed: NJ Hazardous List; Substance Number: 2891
- Massachusetts: Listed
- Pennsylvania: Listed
- Canada DSL: Listed
- Canadian Regulations: WHMIS Hazard Class(es): None.

SECTION 16 : ADDITIONAL INFORMATION
Component B - SDS

SECTION 1 : IDENTIFICATION

Product identifier used on the label: Wear Guard Ultra Resin

Other means of identification:

Synonyms: None.

Recommended use of the chemical and restrictions on use:

Product Use/Restriction: Not applicable.

Chemical manufacturer address and telephone number:

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

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

SECTION 2 : HAZARD(S) IDENTIFICATION

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

GHS Pictograms:

Signal Word: WARNING.

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

Hazard Statements:
H319 - Causes serious eye irritation.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H335 - May cause respiratory irritation.
Precautionary Statements:
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P321 - Specific treatment (see ... on this label).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

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

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

Potential Health Effects:
Eye:
Can cause moderate irritation, burning sensation, tearing, redness, and swelling. Overexposure may cause lacrimation, conjunctivitis, corneal damage and permanent injury.

Skin:
Can cause skin irritation; itching, redness, rashes, hives, burning, and swelling. Allergic reactions are possible. May cause skin sensitization, an allergic reaction, which becomes evident on reexposure to this material.

Inhalation:
Respiratory tract irritant. High concentration may cause dizziness, headache, and anesthetic effects.

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

Chronic Health Effects:
Prolonged skin contact may lead to burning associated with severe reddening, swelling, and possible tissue destruction.

Signs/Symptoms:
Overexposure can cause headaches, dizziness, nausea, and vomiting.

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

Aggravation of Pre-Existing Conditions:
Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

<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>70 - 80 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>20 - 30 by weight</td>
<td></td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</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:

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:

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

Titanium dioxide:
Guideline ACGIH: TLV-TWA: 10 mg/m³

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 State Appearance:** Viscous. Liquid.

**Color:** Clear

**Odor:** Slight odor.

**Boiling Point:** >500°F (260°C)

**Melting Point:** Not determined.

**Specific Gravity:** 1.17

**Solubility:** Negligible.

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

**Vapor Pressure:** 0.03 mmHg @171°F

**Percent Volatile:** 0

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

**pH:** Neutral.

**Molecular Formula:** Mixture

**Molecular Weight:** Mixture

**Flash Point:** >400°F (204.4°C)

**Flash Point Method:** Pensky-Martens Closed Cup

**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:** Polymerization may occur under certain conditions.

**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**

**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]

**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 [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)]

**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.

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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.

---

**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:**

**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

**Titanium dioxide:**

---

Wear Guard Ultra Kit
Revision: 11/30/2015
Stock No. 11475

Page 9 of 26
SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

- **HMIS Health Hazard:** 2*
- **HMIS Fire Hazard:** 1
- **HMIS Reactivity:** 1
- **HMIS Personal Protection:** X

* Chronic Health Effects

SDS Revision Date: May 25, 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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Signal Word: DANGER.


Hazard Statements:
H318 - Causes serious eye damage.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H332 - Harmful if inhaled.
H302 - Harmful if swallowed.
H335 - May cause respiratory irritation.

Precautionary Statements:

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.
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>Benzene-1,3-Dimethaneamine</td>
<td>1477-55-0</td>
<td>10 - 20 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>Trimethylhexanediamine</td>
<td>3236-53-1</td>
<td>40 - 50 by weight</td>
<td></td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
<td>20 - 30 by weight</td>
<td></td>
</tr>
<tr>
<td>Paratertiarybutylphenol</td>
<td>98-54-4</td>
<td>10 - 20 by weight</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 4 : FIRST AID MEASURES

Description of necessary measures:
**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:**

**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:**

**Benzene-1,3-Dimethaneamine:**
Guideline ACGIH: TLV-STEL: C 0.1 mg/m3
Skin: Yes.

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

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

Individual protection measures:

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

Skin Protection Description: 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: Paste..
Color: White
Odor: mild ammonia.
Boiling Point: >350°F (176.6°C)
Melting Point: Not determined.
Specific Gravity: 2.25
Solubility: negligible.
Vapor Density: >1 (air = 1)
Vapor Pressure: negligible.
Percent Volatile: 0
Evaporation Rate: <1 (butyl acetate = 1)
pH: 9.5 @ 5 Percent Solution
Molecular Formula: Mixture
Molecular Weight: Mixture
Flash Point: >250°F (121.1°C)
Flash Point Method: Setaflash 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
TOXICOLOGICAL INFORMATION:

**Benzene-1,3-Dimethaneamine**

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

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

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

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

**Paratertiarybutylphenol**

**Eye:** Administration into the eye - Rabbit Standard Draize test: 10 mg [Severe]

**Skin:** Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: 2520 uL/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

**Ingestion:** Oral - Rat LD50 - Lethal dose, 50 percent kill: 3250 uL/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:**

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

SECTION 14 : TRANSPORT INFORMATION

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

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

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

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

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

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

SECTION 15 : REGULATORY INFORMATION

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

**Benzene-1,3-Dimethaneamine**

**TSCA Inventory Status:** Listed

**Canada DSL:** Listed

**Amorphous silicon dioxide**

**TSCA Inventory Status:** Listed

**Canada DSL:** Listed

**Trimethylhexanediamine**

**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

**Paratertiarybutylphenol**
Component D - SDS

SECTION 1 : IDENTIFICATION

Product identifier used on the label: WEAR GUARD ™ EPOXY PRIMER RESIN

Other means of identification:
Synonyms: None.

Recommended use of the chemical and restrictions on use:
Product Use/Restriction: Not applicable.

Chemical manufacturer address and telephone number:
Manufacturer Name: ITW
Address: 30 Endicott Street
Danvers, MA 01923
General Phone Number: (978) 777-1100

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

SECTION 2 : HAZARD(S) IDENTIFICATION

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

GHS Pictograms:
**Signal Word:** WARNING.

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

**Hazard Statements:**
- H319 - Causes serious eye irritation.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H335 - May cause respiratory irritation.

**Precautionary Statements:**
- P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 - Wash hands thoroughly after handling.
- P271 - Use only outdoors or in a well-ventilated area.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P352 - IF ON SKIN: Wash with plenty of water.
- P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
- P313 - Specific treatment (see on this label).
- P332+P337 - If skin irritation or rash occurs: Get medical advice/attention.
- P333+P337 - If skin irritation persists: Get medical advice/attention.
- P337+P313 - If eye irritation persists: Get medical advice/attention.
- P362+P364 - Take off contaminated clothing and wash it before reuse.
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
- 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**

<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>70 - 80 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>Phenol, polymer with formaldehyde, glycidyl ether</td>
<td>28064-14-4</td>
<td>10 - 20 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**

- Wear Guard Ultra Kit
- Stock No. 11475
- Revision: 11/30/2015
### 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:**

**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.
Boiling Point: Not determined.
Melting Point: Not determined.
Specific Gravity: 1.28
Solubility: Not determined.
Vapor Density: Not determined.
Vapor Pressure: Not determined.
Percent Volatile: Not determined.
Evaporation Rate: Not determined.
pH: Not determined.
Molecular Formula: Mixture
Molecular Weight: Mixture
Viscosity: 54,000 SP4@10rpm
Flash Point: >400°F (204.4°C)
Flash Point Method: Pensky-Martens Closed Cup
Lower Flammable/Explosive Limit: Not determined.
Upper Flammable/Explosive Limit: Not determined.
Auto Ignition Temperature: Not determined.

SECTION 10: STABILITY and REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.
Possibility of hazardous reactions: Polymerization may occur under certain conditions.
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

TOXICOLOGICAL INFORMATION:

**Bisphenol A diglycidyl ether resin:**

**Eye:**
- Administration into the eye - Rabbit Standard Draize test: 100 mg [Mild]
- Administration into the eye - Rabbit Standard Draize test: 20 mg/24H [Moderate]
- Administration into the eye - Rabbit Standard Draize test: 5 mg/24H [Severe] (RTECS)

**Skin:**
- Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: >20 mL/kg [Details of toxic effects not reported other than lethal dose value]
- Administration onto the skin - Rat LD50 - Lethal dose, 50 percent kill: >1200 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

**Ingestion:**
- Oral - Rat LD50 - Lethal dose, 50 percent kill: 10700 uL/kg [Details of toxic effects not reported other than lethal dose value]
- Oral - Rat LD50 - Lethal dose, 50 percent kill: 13600 mg/kg [Behavioral - Somnolence (general depressed activity) Lungs, Thorax, or Respiration - Dyspnea Nutritional and Gross Metabolic - Weight loss or decreased weight gain]
- Oral - Rat LD50 - Lethal dose, 50 percent kill: 13.6 gm/kg [Details of toxic effects not reported other than lethal dose value]
- Oral - Rat LD50 - Lethal dose, 50 percent kill: 11.4 gm/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)
- Oral - Rat LD50 - Lethal dose, 50 percent kill: 30 gm/kg [Behavioral - Somnolence (general depressed activity) Lungs, Thorax, or Respiration - Dyspnea Nutritional and Gross Metabolic - Weight loss or decreased weight gain]
- Oral - Rat LD50 - Lethal dose, 50 percent kill: 30 gm/kg [Details of toxic effects not reported other than lethal dose value]
- Oral - Rat LD50 - Lethal dose, 50 percent kill: >1 gm/kg [Details of toxic effects not reported other than lethal dose value] (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.

Waste Disposal:
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

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

Phenol, polymer with formaldehyde, glycidyl ether:
TSCA Inventory Status: Listed
Canada DSL: Listed

Canadian Regulations: WHMIS Hazard Class(es): D2B

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 Creation Date: May 07, 2010
SDS Revision Date: July 25, 2015
SDS Revision Notes: GHS Update
SDS Format: In accordance to OSHA GHS 1910.1200
SDS Author: Actio Corporation

* Chronic Health Effects
Component A - SDS

SECTION 1 : IDENTIFICATION

Product identifier used on the label:
Product Name: WEAR GUARD ™ EPOXY 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.
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.
Acute Dermal Toxicity, Category 4.

Hazard Statements:
H331 - Toxic if inhaled.
H318 - Causes serious eye damage.
H314 - Causes severe skin burns and eye damage.
H317 - May cause damage to organs through prolonged or repeated exposure.
H341 - Suspected of causing genetic defects.
H317 - May cause an allergic skin reaction.
H312 - Harmful in contact with skin.
**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.
- P271 - Use only outdoors or in a well-ventilated area.
- P262 - Contaminated work clothing should not be allowed out of the workplace.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do not induce vomiting.
- P302+P352 - IF ON SKIN: Wash with plenty of water.
- P303+P361+P333 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
- 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/doctor/...
- P308+P313 - IF exposed or concerned: Get medical advice/attention.
- P309+P353 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P310 - Immediately call a POISON CENTER or doctor/physician.
- P311 - Call a POISON CENTER or doctor/physician.
- P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
- P314 - Get medical advice/attention if you feel unwell.
- P321 - 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:** Can cause severe eye irritation and burns. Eye contact may cause permanent damage or blindness.

**Skin:** Causes severe skin irritation. 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:** Vapor or mist may cause severe respiratory system irritation.

**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 may cause eye watering or discomfort, redness and swelling.

**Target Organs:** Eyes. Skin. Respiratory system. Digestive system. Central nervous 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>Formaldehyde polymer with phenol and TETA</td>
<td>32610-77-8</td>
<td>60 - 100 by weight</td>
<td></td>
</tr>
<tr>
<td>Phenol</td>
<td>108-95-2</td>
<td>10 - 30 by weight</td>
<td>604-001-00-2</td>
</tr>
<tr>
<td>Triethylenetetramine</td>
<td>112-24-3</td>
<td>5 - 10 by weight</td>
<td>612-059-00-5</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.

**Most important symptoms/effects, acute and delayed:** Liver disorders. Kidney disorders. Skin disorders and Allergies. Eye disease.

**Other First Aid:**
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:


Unusual Fire Hazards: May generate ammonia gas. May generate toxic nitrogen oxide gases. Use of water may result in the formation of highly 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. Avoid personal contact and breathing vapors or mists. 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 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):

Work Practices: 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:
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.

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**SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES**

**PHYSICAL AND CHEMICAL PROPERTIES:**

- **Physical State Appearance:** Paste.
- **Color:** Amber.
- **Odor:** Mild phenolic-like.
- **Boiling Point:** Not determined.
- **Melting Point:** Not determined.
- **Specific Gravity:** 1.09
- **Solubility:** APPRECIABLE.
- **Vapor Density:** Not determined.
- **Vapor Pressure:** <1 mmHg @68°F
- **Percent Volatile:** 0
- **Evaporation Rate:** <<1 (butyl acetate = 1)
- **pH:** Alkaline
- **Molecular Formula:** Mixture
- **Molecular Weight:** Mixture
- **Flash Point:** >250°F (121.1°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:** 0 g/L
- **Percent Solids by Weight:** 100

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**SECTION 10 : STABILITY and REACTIVITY**

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

Possibility of hazardous reactions: Not reported.

**Conditions To Avoid:**
**SECTION 11 : TOXICOLOGICAL INFORMATION**

**Phenol:**

**IARC:** IARC: Group 3: Undassifiable as to carcinogenicity to humans.

**RTECS Number:** SJ3325000

**Eye:**
- Oral - Mouse LD50: 180 mg/kg [Details of toxic effects not reported other than lethal dose value]
- Subcutaneous - Mouse LD50: 344 mg/kg [Details of toxic effects not reported other than lethal dose value]
- Oral - Rat LD50: 317 mg/kg [Behavioral - Convulsions or effect on seizure threshold]
- Intraperitoneal - Mouse LD50: 669 mg/kg [Behavioral - Tremor Kidney/Ureter/Bladder - Hematuria Skin and Appendages - Cutaneous sensitization, experimental (After topical exposure)]

**Skin:**
- Intraperitoneal - Mouse LD50: 177 mg/m3 [Details of toxic effects not reported other than lethal dose value]
- Intraperitoneal - Rat LC50: 316 mg/m3/4H [Details of toxic effects not reported other than lethal dose value]
- Oral - Mouse LD50: 270 mg/kg [Details of toxic effects not reported other than lethal dose value]
- Intravenous - Mouse LD50: 112 mg/kg [Behavioral - Tremor]

**Inhalation:**
- Inhalation - Mouse LD50: 630 mg/kg [Details of toxic effects not reported other than lethal dose value]
- Inhalation - Rabbit LD50: 300 mg/kg [Details of toxic effects not reported other than lethal dose value]

**Ingestion:**
- 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]
- Administration onto the skin - Rabbit LD50: 1500 mg/kg [Details of toxic effects not reported other than lethal dose value]
- Skin irritation test: 490 mg
- Open irritation test: 490 mg
- LD50: 2500 mg/kg [Details of toxic effects not reported other than lethal dose value]
- LD50: 805 mg/kg [Details of toxic effects not reported other than lethal dose value]
- LD50: 5500 mg/kg [Details of toxic effects not reported other than lethal dose value]
- LD50: 38.5 mg/kg [Behavioral - Convulsions or effect on seizure threshold]

**Triethylenetetramine:**

**RTECS Number:** YE6650000

**Eye:**
- Oral - Rabbit Standard Draize test: 49 mg
- Oral - Rabbit Standard Draize test: 20 mg

**Skin:**
- Oral - Mouse LD50: 2500 mg/kg [Details of toxic effects not reported other than lethal dose value]
- Intraperitoneal - Mouse LD50: 468 mg/kg [Details of toxic effects not reported other than lethal dose value]
- Intravenous - Mouse LD50: 350 mg/kg [Details of toxic effects not reported other than lethal dose value]
- Oral - Rabbit LD50: 5500 mg/kg [Details of toxic effects not reported other than lethal dose value]
- Administration onto the skin - Rabbit LD50: 805 mg/kg [Details of toxic effects not reported other than lethal dose value]
- Oral - Mouse LD50: 38.5 mg/kg [Details of toxic effects not reported other than lethal dose value]
- Oral - Mouse LD50: 38.5 mg/kg [Details of toxic effects not reported other than lethal dose value]
- LD50: 1500 mg/kg [Details of toxic effects not reported other than lethal dose value]
- LD50: 1500 mg/kg [Details of toxic effects not reported other than lethal dose value]
- LD50: 180 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: 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:

Formaldehyde polymer with phenol and TETA:
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

Triethylenetetramine:
TSCA Inventory Status: Listed
Massachusetts: Listed
Pennsylvania: Listed
Canada DSL: Listed
EC Number: 612-059-00-5

Canadian Regulations: WHMIS Hazard Class(es): E; D2B; D1B
All components of this product are on the Canadian Domestic Substances List.

WHMIS Pictograms:

SECTION 16: ADDITIONAL INFORMATION

HMIS Ratings:

<table>
<thead>
<tr>
<th>HMIS Health Hazard</th>
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<tr>
<td>HMIS Reactivity</td>
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<td>HMIS Personal Protection</td>
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* Chronic Health Effects

SDS Creation Date: May 07, 2010
SDS Revision Date: November 30, 2015
SDS Revision Notes: GHS Update
SDS Format: In accordance to OSHA GHS 1910.1200