**MATERIAL SAFETY DATA SHEET**

Prepared according to U.S. OSHA, CMA, ANSI, Canadian WHMIS regulations

**CeramAlloy CP+AC Base**

### SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** CeramAlloy CP+AC Base  
**CHEMICAL FAMILY NAME:** Mixture  
**U.N. NUMBER:** UN3082  
**U.N. DANGEROUS GOODS CLASS:** Environmentally Hazardous Substances, Liquid, n.o.s. (Diglycidyl Ether Bisphenol A Polymer), Class 9, PG III  
**SUPPLIER/MANUFACTURER'S NAME:** ENECON Corporation  
**ADDRESS:** 6 Platinum Court, Medford, New York 11763-2251  
**EMERGENCY PHONE:** 800-255-3924 (U.S.A.)  
**BUSINESS PHONE:** 516-349-0022  
**BUSINESS FAX:** 516-349-5522  
**DATE OF PREPARATION:** May 26, 2012  
**DATE OF LAST REVISION:** January, 2009

### SECTION 2 - HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** This product is a gray to black paste with no odor. Exposure to this product can be irritating to eyes, respiratory system and skin. It is a non-flammable liquid with a flash point >250°C. The Environmental effects of this product have not been investigated, however it may cause adverse effects.

#### HEALTH HAZARDS OR RISKS FROM EXPOSURE:

**ACUTE:**  
- **INHALATION:** Inhalation of vapors from heated materials may cause irritation to respiratory tract  
- **EYE CONTACT:** Direct contact may cause irritation with pain, burning and tearing  
- **SKIN CONTACT:** Prolonged or repeated contact may cause skin irritation or dermatitis  
- **INGESTION:** Not a normal route of entry in normal application, however Ingestion of this product will cause gastrointestinal irritation  
- **CHRONIC:** Prolonged or repeated exposure may cause dermatitis to the skin.

**TARGET ORGANS:**  
- **ACUTE:** Eye, Skin  
- **CHRONIC:** Skin

### SECTION 3 - COMPOSITION and INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>HAZARDOUS INGREDIENTS</th>
<th>CAS #</th>
<th>EINECS #</th>
<th>ICSC #</th>
<th>WT %</th>
<th>HAZARD CLASSIFICATION; RISK PHRASES</th>
<th>RISK PHRASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramic Microspheres</td>
<td>66402-68-4</td>
<td>266-340-9</td>
<td>Not Listed</td>
<td>40 – 50%</td>
<td>HAZARD CLASSIFICATION: [Xi] Irritant</td>
<td>R36/38</td>
</tr>
<tr>
<td>Bisphenol A Diglycidyl Ether Polymer</td>
<td>25068-38-6</td>
<td>500-033-5</td>
<td>Not Listed</td>
<td>20 – 30%</td>
<td>HAZARD CLASSIFICATION: [Xi] Irritant, [N] Dangerous to the Environment</td>
<td>R36/38, R50/53</td>
</tr>
<tr>
<td>Aluminum Oxide</td>
<td>1344-28-1</td>
<td>215-691-6</td>
<td>0351</td>
<td>10 – 20%</td>
<td>HAZARD CLASSIFICATION: [Xi] Irritant</td>
<td>R36/38</td>
</tr>
<tr>
<td>Wolastonite</td>
<td>13983-17-0</td>
<td>237-772-5</td>
<td>Not Listed</td>
<td>1 – 10%</td>
<td>HAZARD CLASSIFICATION: [Xi] Irritant</td>
<td>R36/38</td>
</tr>
<tr>
<td>Epoxy Phenol Novolac Resin</td>
<td>28064-14-4</td>
<td>Not Listed in ESIS</td>
<td>Not Listed</td>
<td>1 - 8%</td>
<td>HAZARD CLASSIFICATION: [Xi] Irritant, [N] Dangerous to the Environment</td>
<td>R36/38, R50/53</td>
</tr>
<tr>
<td>Silicon Dioxide – Non Crystalline</td>
<td>67762-90-7</td>
<td>Not Listed in ESIS</td>
<td>Not Listed</td>
<td>&lt;2%</td>
<td>HAZARD CLASSIFICATION: [Xi] Irritant</td>
<td>R36/38</td>
</tr>
</tbody>
</table>

Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).

### SECTION 4 - FIRST-AID MEASURES

Contaminated individuals of chemical exposure must be taken for medical attention if any adverse effect occurs. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to health professional with contaminated individual.
MATERIAL SAFETY DATA SHEET

Contaminated individuals of chemical exposure must be taken for medical attention if any adverse effect occurs. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to health professional with contaminated individual.

**EYE CONTACT:** If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention if irritation persists.

**SKIN CONTACT:** Wash skin thoroughly after handling. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder before re-use.

**INHALATION:** If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention if breathing difficulty continues.

**INGESTION:** If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or MSDS with the victim to the health professional.

**MEDICAL CONDITIONS AGRAVATED BY EXPOSURE:** Pre-existing skin, or eye problems may be aggravated by prolonged contact.

### SECTION 5 - FIRE-FIGHTING MEASURES

**FLASH POINT:** >250°C

**FLAMMABILITY CLASS:** 111B

**AUTOIGNITION TEMPERATURE:** Not Established

**FLAMMABLE LIMITS (in air by volume, %):**
- Lower (LEL): NA
- Upper (UEL): NA

**FIRE EXTINGUISHING MATERIALS:** As appropriate for surrounding fire. Carbon dioxide, foam, dry chemical, halon, or water spray.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**
- Explosion Sensitivity to Static Discharge: Not Sensitive

**SPECIAL FIRE-FIGHTING PROCEDURES:** Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

### SECTION 6 - ACCIDENTAL RELEASE MEASURES

**SPILL AND LEAK RESPONSE:** Personnel should be trained for spill response operations.

**SPILLS:** Contain spill if safe to do so. Prevent entry into drains, sewers, and other waterways. Soak up with an absorbent material and place in an appropriate container for disposal. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

### SECTION 7 - HANDLING AND STORAGE

**WORK PRACTICES AND HYGIENE PRACTICES:** As with all chemicals, avoid getting this product on you or in you. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing dusts generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately.

**STORAGE AND HANDLING PRACTICES:** Containers of this product must be properly labeled. Store containers in a cool, dry location. Keep container tightly closed when not in use. Store away from strong acids or oxidizers.

### SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

**EXPOSURE LIMITS/GUIDELINES:**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>OCGIH TWA</th>
<th>OSHA TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramic Microspheres</td>
<td>66402-68-4</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Bisphenol A Dicyclidyl Ether Polymer</td>
<td>25068-38-6</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Aluminum Oxide</td>
<td>1344-28-1</td>
<td>10 mg/m³</td>
<td>15 mg/m³</td>
</tr>
<tr>
<td>Wolastonite</td>
<td>13983-17-0</td>
<td>10 mg/m³</td>
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</tr>
<tr>
<td>Epoxy Phenol Novolac Resin</td>
<td>28064-14-4</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Silicon Dioxide – Non Crystalline</td>
<td>67762-90-7</td>
<td>10 mg/m³</td>
<td>6 mg/m³</td>
</tr>
</tbody>
</table>

Currently, international exposure limits are not established for all the components of this product. Please check with competent authority in each country for the most recent limits in place.

**VENTILATION AND ENGINEERING CONTROLS:** Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above. Use local exhaust ventilation to control airborne vapor. Ensure eyewash/safety shower stations are available near areas where this product is used.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.122) or equivalent standard of Canada. Please reference applicable regulations and standards for relevant details.

**RESPIRATORY PROTECTION:** Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93.

**EYE PROTECTION:** Safety glasses or chemical goggles where splashing is possible. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Canadian Standards.

**SKIN PROTECTION:** Use chemical resistant gloves to prevent skin contact. Use body protection appropriate to prevent skin contact (e.g. lab coat, overalls). If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada.
SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid
**APPEARANCE & ODOR:** Gray to black paste with no odor.
**ODOR THRESHOLD (PPM):** None
**VAPOR PRESSURE (mmHg):** Not Available
**VAPOR DENSITY (AIR=1):** Not Available
**BY WEIGHT:** Not Available
**EVAPORATION RATE (nBuAc = 1):** Not Available
**BOILING POINT (°C):** >200°C
**FREEZING POINT (°C):** Not Available
**pH:** Not Available
**SPECIFIC GRAVITY 20°C (WATER =1):** 1.78
**SOLUBILITY IN WATER (%):** Non-Soluble
**VOC:** 19 g/L

SECTION 10 - STABILITY and REACTIVITY

**STABILITY:** Product is stable
**DECOMPOSITION PRODUCTS:** When heated to decomposition this product may form formaldehyde, carbon dioxide, carbon monoxide and phenolic materials as products of incomplete combustion.
**MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:** Strong acids and strong oxidizing agents. Uncontrolled reactions with amines and bases.
**HAZARDOUS POLYMERIZATION:** Will not occur.
**CONDITIONS TO AVOID:** Contact with incompatible materials.

SECTION 11 - TOXICOLOGICAL INFORMATION

**TOXICITY DATA:** Toxicity data is available for the following components:
- CAS# 25068-38-6 Oral LD50 >5000 mg/kg Rat
- CAS# 28064-14-4 Oral LD50 >10000 mg/kg Rat
- CAS# 67762-90-7 Oral LD50 >5000 mg/m³ Rat
**SUSPECTED CANCER AGENT:** None of the ingredients are found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC and therefore are not considered to be, or suspected to be a cancer-causing agent by these agencies.
**IRRITANCY OF PRODUCT:** Contact with this product can be irritating to exposed skin, eyes and respiratory system.
**SENSITIZATION OF PRODUCT:** This product is not considered a sensitizer.
**REPRODUCTIVE TOXICITY INFORMATION:** No information concerning the effects of this product and its components on the human reproductive system.

SECTION 12 - ECOLOGICAL INFORMATION

**ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.**
**ENVIRONMENTAL STABILITY:** No Data available at this time.
**EFFECT OF MATERIAL ON PLANTS or ANIMALS:** No evidence is currently available on this product’s effects on plants or animals, however release of this product may have long term adverse effects to the environment.
**EFFECT OF CHEMICAL ON AQUATIC LIFE:** No evidence is currently available on this product’s effects on aquatic life, however release of this product may have long term adverse effects to the environment.

SECTION 13 - DISPOSAL CONSIDERATIONS

**PREPARING WASTES FOR DISPOSAL:** Waste disposal must be in accordance with appropriate Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

SECTION 14 - TRANSPORTATION INFORMATION

**US DOT, IATA, IMO, ADR:**
**THIS PRODUCT IS HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.**
**PROPER SHIPPING NAME:** Environmentally Hazardous Substances, Liquid, n.o.s. (Diglycidyl Ether Bisphenol A Polymer)
**HAZARD CLASS NUMBER and DESCRIPTION:** Class 9, Environmentally Hazardous Substance
**UN IDENTIFICATION NUMBER:** UN3082
**PACKING GROUP:** PGIII
**DOT LABEL(S) REQUIRED:** Class 9, Environmentally Hazardous Substance
**NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2004):** 171
**MARINE POLLUTANT:** None of the ingredients are classified by the DOT as a Marine Pollutant (as defined by 49 CFR 172.101, Appendix B)

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS:
This product is classified as dangerous goods, per U.S. DOT regulations, under 49 CFR 172.101.
TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:
This product is classified as Dangerous Goods, per regulations of Transport Canada.
INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):
This product is classified as Dangerous Goods, by rules of IATA:
INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION:
This product is classified as Dangerous Goods by the International Maritime Organization.
SECTION 15 - REGULATORY INFORMATION

UNITED STATES REGULATIONS

SARA REPORTING REQUIREMENTS: This product is not subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act., as follows: None

TSCA: All components in this product are listed on the US Toxic Substances Control Act (TSCA) inventory of chemicals.

SARA 311/312:
Acute Health: Yes  Chronic Health: No  Fire: No  Reactivity: No

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for this product. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) may apply, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): None

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): None of the ingredients are on the California Proposition 65 lists.

CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: All of the components of this product are on the DSL Inventory

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: No component of this product is on the CEPA First Priorities Substance Lists.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: This is considered to be a hazardous material under the Hazardous Products Act as defined by the Controlled Products Regulations and is therefore subject to the labeling and MSDS requirements of the Workplace Hazardous Materials Information System (WHMIS). Class D Division 2B

INTERNATIONAL CHEMICAL INVENTORIES: Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac:
Australian Inventory of Chemical Substances (AICS): Listed or Exempt

Korean Existing Chemicals List (ECL): Listed or Exempt

Japanese Existing National Inventory of Chemical Substances (ENCS): Listed or Exempt

Philippines Inventory if Chemicals and Chemical Substances (PICCS): Listed or Exempt

Swiss Giftliste List of Toxic Substances: Listed or Exempt

U.S. TSCA: Listed

SECTION 16 - OTHER INFORMATION

PREPARED BY: Paul Eigbrett  MSDS Authoring PLUS

Disclaimer: To the best of ENECON Corporation’s knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness is not guaranteed and no warranties of any type either express or implied are provided. The information contained herein relates only to this specific product.
CeramAlloy CP+AC Activator

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CeramAlloy CP+AC Activator
CHEMICAL FAMILY NAME: Mixture
U.N. NUMBER: UN1760
U.N. DANGEROUS GOODS CLASS: Corrosive Liquid, n.o.s. (Contains Polyoxyalkleneamine, Isophoronediamine and Aminoethylpiperazine), Class 8, PG III
SUPPLIER/MANUFACTURER'S NAME: ENECON Corporation
ADDRESS: 6 Platinum Court, Medford, New York 11763-2251
EMERGENCY PHONE: 800-255-3924 (U.S.A.) 813-248-0585 (International)
BUSINESS PHONE: 516-349-0022
BUSINESS FAX: 516-349-5522
DATE OF PREPARATION: May 12, 2012
DATE OF LAST REVISION: January, 2009

SECTION 2 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: This product is a white paste with an ammonia odor. Corrosive: may cause severe eye damage. Vapors may be irritating to eyes. May be toxic if absorbed through skin. Inhalation of vapors can be irritating to the respiratory tract. It is a non-flammable liquid with a flash point >95°C. The Environmental effects of this product have not been investigated, however this product may cause significant adverse effects.

SECTION 3 - COMPOSITION and INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>HAZARDOUS INGREDIENTS</th>
<th>CAS #</th>
<th>EINECS #</th>
<th>ICSC #</th>
<th>WT %</th>
<th>HAZARD CLASSIFICATION; RISK PHRASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fibrous Glass</td>
<td>65997-17-3</td>
<td>266-046-0</td>
<td>Not Listed</td>
<td>30 – 40%</td>
<td>HAZARD CLASSIFICATION: [Xi] Irritant RISK PHRASES: R36/38</td>
</tr>
<tr>
<td>Benzyl Alcohol</td>
<td>100-51-6</td>
<td>202-859-9</td>
<td>0833</td>
<td>5 – 20%</td>
<td>HAZARD CLASSIFICATION: [Xn] Harmful RISK PHRASES: R20/22</td>
</tr>
<tr>
<td>Epoxy-Amine Adduct</td>
<td>Not Available</td>
<td>Not Listed in ESIS</td>
<td>Not Listed</td>
<td>5 – 20%</td>
<td>HAZARD CLASSIFICATION: [Xn] Harmful, [C] Corrosive, RISK PHRASES: R22, R34</td>
</tr>
<tr>
<td>Polyoxyalkyleneamine</td>
<td>9046-10-0</td>
<td>Not Listed in ESIS</td>
<td>Not Listed</td>
<td>5 – 10%</td>
<td>HAZARD CLASSIFICATION: [Xn] Harmful RISK PHRASES: R20/22</td>
</tr>
</tbody>
</table>
# Material Safety Data Sheet

**CeramAlloy CP+AC Activator**

<table>
<thead>
<tr>
<th>Titanium Dioxide</th>
<th>13463-67-7</th>
<th>236-675-5</th>
<th>0338</th>
<th>1 – 8%</th>
<th>HAZARD CLASSIFICATION: [X] Irritant</th>
<th>RISK PHRASES: R36/38</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonylphenol</td>
<td>25154-52-3</td>
<td>246-672-0</td>
<td>0309</td>
<td>1 – 6%</td>
<td>HAZARD CLASSIFICATION: [Xn] Harmful, [C] Corrosive, [N] Dangerous to the Environment</td>
<td>RISK PHRASES: R21/22, R34, R43, R52/53</td>
</tr>
<tr>
<td>Aluminum Oxide</td>
<td>1344-28-1</td>
<td>215-691-6</td>
<td>0351</td>
<td>1 – 5%</td>
<td>HAZARD CLASSIFICATION: [X] Irritant</td>
<td>RISK PHRASES: R36/38</td>
</tr>
<tr>
<td>Methylenebicyclohexanamine</td>
<td>1761-71-3</td>
<td>217-168-8</td>
<td>Not Listed</td>
<td>1 – 3%</td>
<td>HAZARD CLASSIFICATION: [Xn] Harmful</td>
<td>RISK PHRASES: R20/22</td>
</tr>
</tbody>
</table>

*Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).*

## Section 4 - First-Aid Measures

**Contaminated individuals of chemical exposure must be taken for medical attention if any adverse effect occurs.**  Rescuers should be taken for medical attention, if necessary.  Take copy of label and MSDS to health professional with contaminated individual.

**Eye Contact:** If product enters the eyes, open eyes while under gentle running water for at least 15 minutes.  Seek medical attention if irritation persists.

**Skin Contact:** Wash skin thoroughly after handling.  Seek medical attention if irritation develops and persists.  Remove contaminated clothing and launder before re-use.

**Inhalation:** If breathing becomes difficult, remove victim to fresh air.  If necessary, use artificial respiration to support vital functions.  Seek medical attention if breathing difficulty continues.

**Ingestion:** If product is swallowed, call physician or poison control center for most current information.  If professional advice is not available, do not induce vomiting.  Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow.  Seek medical advice.  Take a copy of the label and/or MSDS with the victim to the health professional.

**Medical Conditions Aggravated by Exposure:**  Pre-existing skin, or eye problems may be aggravated by prolonged contact.

**Recommended to Physicians:** Treat symptoms and reduce over-exposure.

## Section 5 - Fire-Fighting Measures

**Flash Point:** >95°C

**Flammability Class:** 111B

**Autoignition Temperature:** Not Established

**Flammable Limits (in air by volume, %):**

- Lower (LEL): NA
- Upper (UEL): NA

**Fire Extinguishing Materials:** As appropriate for surrounding fire.  Carbon dioxide, foam, dry chemical, halon, or water spray.

**Unusual Fire and Explosion Hazards:**

- Explosion Sensitivity to Mechanical Impact: Not Sensitive
- Explosion Sensitivity to Static Discharge: Not Sensitive

**Special Fire-Fighting Procedures:** Incipient fire responders should wear eye protection.  Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment.  Isolate materials not yet involved in the fire and protect personnel.  Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray.  If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

## Section 6 - Accidental Release Measures

**Spill and Leak Response:** Personnel should be trained for spill response operations.

**Spills:** Contain spill if safe to do so.  Prevent entry into drains, sewers, and other waterways.  Soak up with an absorbent material and place in an appropriate container for disposal.  Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

## Section 7 - Handling and Storage

**Work Practices and Hygiene Practices:**  As with all chemicals, avoid getting this product ON YOU or IN YOU.  Wash thoroughly after handling this product.  Do not eat, drink, smoke, or apply cosmetics while handling this product.  Avoid breathing dusts generated by this product.  Use in a well-ventilated location.  Remove contaminated clothing immediately.

**Storage and Handling Practices:** Containers of this product must be properly labeled.  Store containers in a cool, dry location.  Keep container tightly closed when not in use.  Store away from strong acids or oxidizers and reactive materials.
MATERIAL SAFETY DATA SHEET

CeramAlloy CP+AC Activator

SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS/GUIDELINES:

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<th>CAS#</th>
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<tr>
<td>Fibrous Glass</td>
<td>65997-17-3</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
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<td>Benzyl Alcohol</td>
<td>100-51-6</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Isophoronediamine</td>
<td>2855-13-2</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Epoxy-Amine Adduct</td>
<td>Not Available</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Polyoxalkyleneamine</td>
<td>9046-10-0</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Nonylphenol</td>
<td>84852-15-3</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>13463-67-7</td>
<td>10 mg/m³</td>
<td>15 mg/m³</td>
</tr>
<tr>
<td>Aminoethyl Piperazine</td>
<td>140-31-8</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Nonylphenol</td>
<td>25154-52-3</td>
<td>Not Listed</td>
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</tr>
<tr>
<td>Aluminum Oxide</td>
<td>1344-28-1</td>
<td>10 mg/m³</td>
<td>15 mg/m³</td>
</tr>
<tr>
<td>Methylenebiscyclohexanamine</td>
<td>1761-71-3</td>
<td>Not Listed</td>
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</table>

Currently, international exposure limits are not established for all the components of this product. Please check with competent authority in each country for the most recent limits in place.

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above. Use local exhaust ventilation to control airborne vapors. Ensure eyewash/safety shower stations are available near areas where this product is used.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93.

EYE PROTECTION: Safety glasses or chemical goggles where splashing is possible. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Canadian Standards.

SKIN PROTECTION: Use chemical resistant gloves to prevent skin contact. Use body protection appropriate to prevent skin contact (e.g., lab coat, overalls). If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL STATE: Paste
APPEARANCE & ODOR: White paste with an ammonia odor.
ODOR THRESHOLD (PPM): None
VAPOR PRESSURE (mmHg): Not Available
VAPOR DENSITY (AIR=1): Not Available
BY WEIGHT:
EVAPORATION RATE (nBuAc = 1): Not Available
BOILING POINT (°C): >200°C
FREEZING POINT (°C): Not Available
pH: Not Available
SPECIFIC GRAVITY 20°C; (WATER =1): 1.37
SOLUBILITY IN WATER (%): Non-Soluble
VOC: 19 g/L

SECTION 10 - STABILITY and REACTIVITY

STABILITY: Product is stable
DECOMPOSITION PRODUCTS: When heated to decomposition this product may form carbon dioxide, carbon monoxide, oxides of nitrogen and unidentified organic compounds.
MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Strong acids and strong oxidizing agents.
HAZARDOUS POLYMERIZATION: Will not occur.
CONDITIONS TO AVOID: Contact with incompatible materials.

SECTION 11 - TOXICOLOGICAL INFORMATION

TOXICITY DATA: Toxicity data is available for the following components:

- CAS# 9046-10-0 Oral LD50: 400 - 2000 mg/kg Rat
- CAS# 25154-52-3 Oral LD50: 1300 mg/kg Rat
- CAS# 140-31-8 Oral LD50: >1620 mg/kg Rat
- CAS# 13463-67-7 Oral LD50: >24000 mg/kg Rat

Suspected Cancer Agent: One or more of the ingredients are found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC and therefore is considered to be, or suspected to be a cancer-causing agent by these agencies.

Titanium Dioxide CAS# 13463-67-7 IARC Group 2B (possible carcinogen to humans)

IRRITANCY OF PRODUCT: Contact with this product can be irritating to exposed skin, eyes and respiratory system.
SENSITIZATION OF PRODUCT: This product is not considered a sensitizer.

REPRODUCTIVE TOXICITY INFORMATION: No information concerning the effects of this product and its components on the human reproductive system.

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SECTION 12 - ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ENVIRONMENTAL STABILITY: No Data available at this time.

EFFECT OF MATERIAL ON PLANTS or ANIMALS: No evidence is currently available on this product’s effects on plants or animals, however release of this product may cause significant adverse effects.

EFFECT OF CHEMICAL ON AQUATIC LIFE: No evidence is currently available on this product’s effects on aquatic life, however release of this product may cause significant adverse effects.

SECTION 13 - DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

SECTION 14 - TRANSPORTATION INFORMATION

US DOT; IATA; IMO; ADR:

THIS PRODUCT IS HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME: Corrosive Liquid, n.o.s. (Contains Polyoxylalkeneamine, Isophoronediamine and Aminoethylpiperazine)

HAZARD CLASS NUMBER and DESCRIPTION: Class 8 Corrosive

UN IDENTIFICATION NUMBER: UN 1760

PACKING GROUP: PGIII

DOT LABEL(S) REQUIRED: Corrosive

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2004): 153

MARINE POLLUTANT: None of the ingredients are classified by the DOT as a Marine Pollutant (as defined by 49 CFR 172.101, Appendix B)

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS:

This product is classified as dangerous goods, per U.S. DOT regulations, under 49 CFR 172.101.

TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:

This product is classified as Dangerous Goods, per regulations of Transport Canada.

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):

This product is classified as Dangerous Goods, by rules of IATA.

INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION:

This product is classified as Dangerous Goods by the International Maritime Organization.

SECTION 15 - REGULATORY INFORMATION

UNITED STATES REGULATIONS

SARA REPORTING REQUIREMENTS: This product is not subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act., as follows: None

TSCA: All components in this product are listed on the US Toxic Substances Control Act (TSCA) inventory of chemicals.

SARA 311/312:

Acute Health: Yes  Chronic Health: No  Fire: No  Reactivity: No

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for this product. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) may apply, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): None

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65):

None of the ingredients are on the California Proposition 65 lists.

U.S. CERCLA REPORTABLE QUANTITY (RQ):

None

CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: All of the components of this product are on the DSL Inventory

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: No component of this product is on the CEPA First Priorities Substance Lists.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: This is considered to be a hazardous material under the Hazardous Products Act Class D

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS):

INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac:  Listed or Exempt
Australian Inventory of Chemical Substances (AICS):

Listed or Exempt

Korean Existing Chemicals List (ECL):

Listed or Exempt

Japanese Existing National Inventory of Chemical Substances (ENCS):

Listed or Exempt

Philippines Inventory if Chemicals and Chemical Substances (PICCS):

Listed or Exempt

Swiss Giftliste List of Toxic Substances:

Listed or Exempt

U.S. TSCA:

Listed

SECTION 16 - OTHER INFORMATION

PREPARED BY: Paul Eigbrett

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