

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

GHS Product Code: C260-WA-0C0

Product Name: CORCHEM® 260 CHEMICAL RESISTANT EPOXY COMPONENT A, [WINTER CURE] COLOR: CLEAR

Recommended use: INDUSTRIAL PROTECTIVE COATING/LINING

Restrictions on use: INTENDED FOR PROFESSIONAL USE ONLY

Manufacturer: CORCHEM MANUFACTURING, INC.

Address: 1227 SOUTH MURPHY STREET  
ODESSA TEXAS, USA 79766-8811

Emergency phone: INFOTRAC: +1-352-323-3500 (TOLL-FREE IN THE US: 800-535-5053)

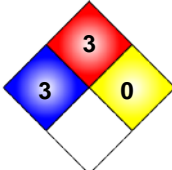
Revision: 2-06052015

## SECTION 2: HAZARDS IDENTIFICATION

### GHS Classification



- Category 1 Skin sensitization  
Serious eye damage  
Aspiration hazard
- Category 1B Skin corrosion
- Category 2 Skin irritation  
Acute toxicity – Inhalation  
Germ cell mutagenicity  
Specific target organ toxicity – Repeated exposure
- Category 3 Flammable liquids  
Skin irritation  
Eye irritation  
Specific target organ toxicity – single exposure  
Central nervous system, Respiratory system
- Category 4 Acute toxicity – Oral  
Acute toxicity – Dermal  
Acute toxicity – Inhalation

**NFPA Rating**



**HMIS**

|    |                     |
|----|---------------------|
| 3* | Health              |
| 3  | Flammability        |
| 0  | Physical Hazard     |
| J  | Personal Protection |

### GHS Label elements, including precautionary statements

#### Hazard Pictograms



Signal word: **Danger**

#### GHS Hazard statement(s)

- H226: Flammable liquid and vapor.
- H304: May be fatal if swallowed and enters airways.
- H312 + H332: Harmful in contact with skin or if inhaled.
- H314: Causes severe skin burns and eye damage.
- H317: May cause an allergic skin reaction.

| PERSONAL PROTECTION INDEX |                                  |   |   |   |                              |   |                      |   |                      |                        |                 |   |           |
|---------------------------|----------------------------------|---|---|---|------------------------------|---|----------------------|---|----------------------|------------------------|-----------------|---|-----------|
| A                         | Goggles                          | G | Goggles + Gloves + Boots  |   |                              |   |                      |   |                      |                        |                 |   |           |
| B                         | Goggles + Gloves                 | H | Goggles + Gloves + Apron + Boots                                    |   |                              |   |                      |   |                      |                        |                 |   |           |
| C                         | Goggles + Gloves + Apron         | I | Goggles + Gloves + Boots  |   |                              |   |                      |   |                      |                        |                 |   |           |
| D                         | Goggles + Gloves + Apron         | J | Goggles + Gloves + Apron + Boots                                    |   |                              |   |                      |   |                      |                        |                 |   |           |
| E                         | Goggles + Gloves + Apron         | K | Goggles + Gloves + Apron + Boots                                    |   |                              |   |                      |   |                      |                        |                 |   |           |
| F                         | Goggles + Gloves + Apron + Boots | X | Consult your supervisor or S.O.P. for "SPECIAL" handling directions |   |                              |   |                      |   |                      |                        |                 |   |           |
| A                         | Safety Glasses                   | n | Splash Goggles  | o | Face Shield & Eye Protection | p | Gloves               | q | Boots                | r                      | Synthetic Apron | s | Full Suit |
| t                         | Dust Respirator                  | u | Vapor Respirator  | w | Dust & Vapor Respirator      | y | Full Face Respirator | z | Airline Hood or Mask | Additional information |                 |   |           |



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- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335: May cause respiratory irritation.
- H335: May cause respiratory irritation.
- H336: May cause drowsiness or dizziness.
- H341: Suspected of causing genetic defects.
- H372: Causes damage to organs through prolonged or repeated exposure.
- H411: Toxic to aquatic life with long lasting effects.

**GHS Precautionary statement(s)**

- P102: Keep out of reach of children.
- P103: Read label before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P210: Keep away from heat / sparks / open flames / hot surfaces – No smoking.
- P220: Keep / Store away from clothing / potential ignition sources / combustible materials.
- P233: Keep container tightly closed.
- P234: Keep only in original container.
- P240: Ground/bond container and receiving equipment.
- P241: Use explosion-proof electrical/ventilating/lighting equipment.
- P242: Use only non-sparking tools.
- P243: Take precautionary measures against static discharge.
- P260: Do not breathe dust / fumes / gas / mist / vapors / spray.
- P264: Wash skin thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P271: Use only outdoors or in a well-ventilated area.
- P273: Avoid release to the environment.
- P281: Use personal protective equipment as required.
- P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304 + 340 + P312: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308 + P313: If exposed or concerned: Get medical advice/attention.
- P314: Get Medical advice/attention if you feel unwell.
- P331: Do NOT induce vomiting.
- P332 + P313: If skin irritation occurs: Get medical advice/attention.
- P337 + P313: If eye irritation occurs: Get medical attention.
- P361 + 362: Remove/Take off immediately all contaminated clothing and wash before reuse.
- P362: Take off contaminated clothing and wash before reuse.
- P370 + P378: In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam to extinguish.
- P391: Collect spillage.
- P401: Store protected at temperatures between 40°F (4°C) and 100°F (38°C).

P501: Dispose of contents/container to comply with the requirements of environmental protection and waste disposal legislation and any regional, local authority requirements.

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### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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| <u>Ingredient(s)</u>                                     | <u>CAS No.</u> | <u>% (by Weight)</u> |
|--|----------------|----------------------|
| 1-Butanol  | 71-36-3        | >25                  |
| Ethylbenzene   | 100-41-4       | <5                   |
| Phenol   | 108-95-2       | <20                  |
| Xylenes  | 1330-20-7      | >30                  |
| 1,3-Bis(aminomethyl)benzene                              | 1477-55-0      | >10                  |
| CBI Additives [NOT REGULATED BY GHS, DOT, IMDG, OR IATA] | MIXTURE        | <10                  |

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### SECTION 4: FIRST AID MEASURES

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#### Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

#### Skin

Immediately remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, initiate and maintain continuous irrigation until patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing, seek immediate medical attention. If skin is not damaged and symptoms persist, avoid further exposure, seek medical attention. Launder clothing before reuse.

#### Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 30 minutes while holding eyelids open; seek immediate medical attention.

#### Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If not breathing, if breathing is irregular, or if respiratory arrest occurs, artificial respiration or oxygen should be administered by trained personnel only. It may be dangerous to provide mouth-to-mouth resuscitation. Keep person warm and quiet; seek immediate medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain open airway. Loosen tight clothing such as a collar, tie, belt, or waistband. Get medical attention if adverse health effects persist or are severe.

#### Protection of first aid personnel

No action shall be taken involving any personal risk without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, wear gloves.

#### Notes to Physicians or First Aid providers

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested.

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### SECTION 5: FIRE-FIGHTING MEASURES

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#### Suitable extinguishing media

Alcohol-resistant foam, water-fog, carbon dioxide, dry chemicals, dry sand, Limestone powder.

#### Specific hazards and by-products from combustion

Burning produces noxious and toxic fumes. **Downwind personnel must be evacuated.** Decomposition products may be toxic and include the following materials: carbon dioxide, carbon monoxide, and various hydrocarbons. Fumes and vapors from the thermal and chemical decompositions vary widely in combustion and toxicity.

#### Special protective equipment and precautions for fire-fighters

Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

COLLECT CONTAMINATED FIRE EXTINGUISHING MATERIAL SEPARATELY. THIS MUST NOT BE DISCHARGED INTO DRAINS. FIRE RESIDUES AND CONTAMINATED FIRE EXTINGUISHING MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS.

## Flash point

Estimated: <140°F (60°C)

## Explosive limit

No data available.

## Autoignition temperature

No data available.

## Fire and explosion hazards

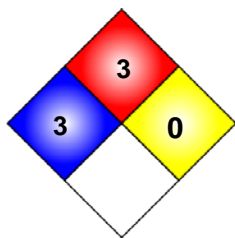
**HIGHLY FLAMMABLE:** Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Many liquids are lighter than water.

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near container, (even empty), because product (even just residue) can ignite explosively.

Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. Use water spray to cool fire exposed containers and structures until fire is out if it can be with minimal risk. Avoid spreading burning material with water used for cooling purposes. Cool storage with water, if exposed to fire.

## NFPA Rating

|               |   |
|---------------|---|
| Health:       | 3 |
| Flammability: | 3 |
| Reactivity:   | 0 |
| Special:      |   |



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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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### Personal Precautions

No action shall be taken involving personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Wear appropriate personal protective equipment (see section 8).

### Environmental Precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

COLLECT CONTAMINATED MATERIAL SEPARATELY. RESIDUES AND CONTAMINATED MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS.

### Small Spill

Stop leak if without risk. Dilute with water and mop up if water soluble or absorb liquid with a dry, inert, non-combustible, absorbent material such as: sand, diatomaceous earth, vermiculite, or other absorbent material. Persons not wearing proper personal protective equipment should be excluded from area of spill.

COLLECT CONTAMINATED CLEAN-UP MATERIALS SEPARATELY. RESIDUES AND CONTAMINATED CLEAN-UP MATERIALS MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS.

### Large Spill

Stop leak if without risk. Move containers from spill area. Prevent run-off to sewers, water courses basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with a dry, inert, non-combustible, absorbent material such as: sand, diatomaceous earth, vermiculite, or other absorbent material and place in container for disposal according to local regulations (see section 13). Dispose via a licensed waste disposal contractor. **Contaminated absorbent material may pose the same hazard as the spilled product.** If run-off occurs, notify proper authorities as required, that a spill has occurred. Note: see section 1 for emergency contact information and section 13 for waste disposal.

COLLECT CONTAMINATED CLEAN-UP MATERIALS SEPARATELY. RESIDUES AND CONTAMINATED CLEAN-UP MATERIALS MUST BE

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**SECTION 7: HANDLING AND STORAGE**


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**Handling**

Wear appropriate personal protective equipment (see section 8). Eating, Drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face prior to eating, drinking, and smoking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in original container, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. **KEEP AWAY FROM HEAT, SPARKS, FLAME, AND OTHER IGNITION SOURCES.**

**Storage**

Store in accordance with local regulations. Store in a dry, cool, climate controlled area between 40°F (8°C) and 100°F (38°C), away from incompatible materials (see section 10), food and drink. Keep container tightly closed and sealed until ready to use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

**Other Precautions**

Consult local, state and federal hazardous waste regulators before disposing of waste materials.

Can cause skin irritation, eye irritation, and allergic skin reaction. Avoid contact with eyes, skin, and clothing. Wash thoroughly after using. **DO NOT TAKE INTERNALLY! HARMFUL IF SWALLOWED! FOR PROFESSIONAL USE ONLY.** Use protective skin cream such as FEND2 (MSA) where skin contact is likely. Prevent prolonged or repeated breathing of vapor, or spray mists. Liquid penetrated shoes and leather, may cause delayed irritation or skin reactions. **KEEP OUT OF REACH OF CHILDREN. DO NOT HANDLE UNTIL THE MANUFACTURER'S INSTRUCTIONS AND SAFETY PRECAUTIONS HAVE BEEN READ AND UNDERSTOOD!** Contact manufacturer if further information is required.

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**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**


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**Exposure Limit(s)**

| <u>Components</u>           | <u>Basis</u>                       | <u>Authority</u> | <u>Control Parameters</u> |                        |
|-----------------------------|------------------------------------|------------------|---------------------------|------------------------|
| 1-Butanol                   | Time Weighted Average (TWA):       | OSHA Z1A         | 100 ppm                   | 300 mg/m <sup>3</sup>  |
| 1-Butanol                   | Recommended exposure limit (REL):  | NIOSH            | 50 ppm                    | 150 mg/m <sup>3</sup>  |
| 1-Butanol                   | Threshold Limit Value (TLV):       | ACGIH            | 20 ppm                    | 60 mg/m <sup>3</sup>   |
| Ethylbenzene                | Time Weighted Average (TWA):       | OSHA Z1A         | 100 ppm                   | 435 mg/m <sup>3</sup>  |
| Ethylbenzene                | Recommended exposure limit (REL):  | NIOSH            | 100 ppm                   | 435 mg/m <sup>3</sup>  |
| Ethylbenzene                | Threshold Limit Value (TLV):       | ACGIH            | 20 ppm                    | 86.8 mg/m <sup>3</sup> |
| Phenol                      | Time Weighted Average (TWA):       | OSHA Z1A         | 5 ppm                     | 19 mg/m <sup>3</sup>   |
| Phenol                      | Recommended exposure limit (REL):  | NIOSH            | 5 ppm                     | 19 mg/m <sup>3</sup>   |
| Phenol                      | Threshold Limit Value (TLV):       | ACGIH            | 5 ppm                     | 19 mg/m <sup>3</sup>   |
| Xylenes                     | Time Weighted Average (TWA):       | OSHA Z1A         | 100 ppm                   | 435 mg/m <sup>3</sup>  |
| Xylenes                     | Recommended exposure limit (REL):  | NIOSH            | 100 ppm                   | 435 mg/m <sup>3</sup>  |
| Xylenes                     | Threshold Limit Value (TLV):       | ACGIH            | 100 ppm                   | 435 mg/m <sup>3</sup>  |
| 1,3-Bis(aminomethyl)benzene | Time Weighted Average (TWA):       | OSHA Z1A         | <b>NOT LISTED</b>         |                        |
| 1,3-Bis(aminomethyl)benzene | Recommended exposure limit (CEIL): | NIOSH            | 0.18 ppm                  | 1 mg/m <sup>3</sup>    |
| 1,3-Bis(aminomethyl)benzene | Threshold Limit Value (STEL):      | ACGIH            | 0.18 ppm                  | 1 mg/m <sup>3</sup>    |

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**


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|  |                           |
|--|---------------------------|
| <b>Appearance (physical state, color, etc.):</b> | Viscous amber liquid      |
| <b>Odor:</b>                                     | Phenolic/hydrocarbon like |
| <b>Odor Threshold:</b>                           | Not available.            |
| <b>pH:</b>                                       | Not available.            |
| <b>Melting Point / Freezing Point:</b>           | Not available.            |
| <b>Initial Boiling Point and Range:</b>          | Not available.            |
| <b>Flash Point:</b>                              | Estimated: <140°F (60°C)  |

|  |                      |
|--|----------------------|
| <b>Evaporation Rate:</b>                               | Not available.       |
| <b>Flammability (solid, gas):</b>                      | Not applicable.      |
| <b>Upper/Lower flammability or explosive limits:</b>   | Not available.       |
| <b>Vapor Pressure:</b>                                 | Not available.       |
| <b>Vapor Density (air = 1):</b>                        | Not available.       |
| <b>Relative Density (water = 1):</b>                   | Not available.       |
| <b>Solubility (in water):</b>                          | Insoluble            |
| <b>Partition coefficient: <i>n</i>- octanol/water:</b> | Not available.       |
| <b>Auto-ignition temperature:</b>                      | Not available.       |
| <b>Decomposition Temperature:</b>                      | Not available.       |
| <b>Volatile Organic Compounds (VOC):</b>               | 72.16%               |
| <b>Percent solids by weight:</b>                       | 34.28                |
| <b>Percent solids by volume:</b>                       | 27.84                |
| <b>Specific Gravity:</b>                               | 0.93 @ 77° F (25° C) |
| <b>Weight per gallon:</b>                              | 7.73                 |

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## SECTION 10: STABILITY AND REACTIVITY

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### Chemical Stability:

Stable under recommended conditions.

### Possibility of hazardous reactions:

Vapors may form explosive mixtures with air.

### Conditions to avoid:

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

### Incompatible materials:

Water, amines, accelerators, promoters, other reactive chemicals. Incompatible with bases, reducing agents, oxidizing agents, nitrous acid and other nitrosating agents, organic acids (i.e. acetic acid, citric acid etc.), mineral acids, sodium hypochlorite, reactive metals, (i.e. sodium, calcium, zinc etc.), metal oxides, heavy metal salts.

### Hazardous Polymerization:

Under normal conditions of storage and use, hazardous polymerization will not occur. Contact with moisture, other materials that react with isocyanates, or temperatures above 350°F (177°C), may cause polymerization.

### Hazardous Decomposition or By-Products:

By fire or high heat: Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke. Isocyanate, Isocyanic acid. Other potentially toxic vapors or fumes.

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## SECTION 11: TOXICOLOGICAL INFORMATION

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### Toxicological Information

#### Likely routes of exposure and potential health effects

|                    |   |
|--------------------|---|
| <b>Ingestion:</b>  | Harmful or fatal if swallowed.  |
| <b>Skin:</b>       | Harmful in contact with skin. Symptoms of overexposure may include headache, dizziness, tiredness, nausea, and vomiting.  |
| <b>Eyes:</b>       | Severely irritating to the eyes.  |
| <b>Inhalation:</b> | Harmful if inhaled. May cause nose, throat, and lung irritation. Inhalation of vapors and/or aerosols in high concentration may cause irritation of the respiratory system. |

#### Acute Toxicity Data

| Product/ingredient name | Method                      | Species | Dose        | Exposure | Result |
|-------------------------|-----------------------------|---------|-------------|----------|--------|
| 1-Butanol               | LC <sub>50</sub> Inhalation | Rat     | 8,000 mk/kg | 4 h      |        |
| 1-Butanol               | LD <sub>50</sub> Oral       | Rat     | 750 mg/kg   | 4 h      |        |
| 1-Butanol               | LD <sub>50</sub> Dermal     | Rabbit  | 3,430 mg/kg | 4 h      |        |

|                             |                             |        |                         |      |            |
|-----------------------------|-----------------------------|--------|-------------------------|------|------------|
| Ethylbenzene                | LC <sub>50</sub> Inhalation | Rat    | 750 mg/kg               | –    | –          |
| Ethylbenzene                | LD <sub>50</sub> Oral       | Rat    | 4,769 mg/kg             | 4 h  |            |
| Ethylbenzene                | LD <sub>50</sub> Dermal     | Rabbit | 15,433 mg/kg            | –    | Irritation |
| Phenol                      | LC <sub>50</sub> Inhalation | Rat    | 410 mg/m <sup>3</sup>   | 4 h  |            |
| Phenol                      | LD <sub>50</sub> Oral       | Rat    | 900 mg/kg               | 8 h  |            |
| Phenol                      | LD <sub>50</sub> Dermal     | Rabbit | 630 mg/kg               | 4 h  |            |
| Xylenes                     | LC <sub>50</sub> Inhalation | Rat    | 5,000 mg/kg             | 4 hr | –          |
| Xylenes                     | LD <sub>50</sub> Oral       | Rat    | 3,523 mg/kg             | 4 hr | –          |
| Xylenes                     | LD <sub>50</sub> Dermal     | Rabbit | 1,100 mg/kg             | 4 hr | Irritation |
| 1,3,Bis(aminomethyl)benzene | LC <sub>50</sub> Inhalation | Rat    | 980 mg/kg               | –    | –          |
| 1,3,Bis(aminomethyl)benzene | LD <sub>50</sub> Oral       | Rat    | 1,340 mg/m <sup>3</sup> | 4 h  |            |
| 1,3,Bis(aminomethyl)benzene | LD <sub>50</sub> Dermal     | Rabbit | 2,000 mg/kg             | 4 h  | –          |

### Potential chronic health effects

|  |  |
|--|--|
| <b>Chronic effects:</b>                                | Once sensitized, a severe allergic reaction may occur when subsequently exposed. Prolonged contact may result in chemical burns and permanent damage. Repeated or prolonged contact causes sensitization, asthma, eczemas, liver disorders, kidney disorders, skin disorders, allergies, and eye disease.                            |
| <b>Target organs:</b>                                  | Absorption of phenolic solutions through the skin may be very rapid and can cause damage to the kidneys, liver, pancreas, spleen, and edema of the lungs.  |
| <b>Carcinogenicity:</b>                                | No known significant effects or critical hazards on the product itself.<br><b>IARC: Group 2B, Ethylbenzene</b> is possibly carcinogenic to humans.<br><b>ICRC: Group 3, Phenol</b> is not classifiable as to its carcinogenicity to humans.<br><b>ICRC: Group 3, Xylene</b> is not classifiable as to its carcinogenicity to humans. |
| <b>Mutagenicity:</b>                                   | No known significant effects or critical hazards on the product itself.  |
| <b>Teratogenicity:</b>                                 | No known significant effects or critical hazards on the product itself.  |
| <b>Fertility effects:</b>                              | No known significant effects or critical hazards on the product itself.  |
| <b>Developmental effects</b>                           | No known significant effects or critical hazards on the product itself.  |
| <b>Medical conditions aggravated by over-exposure:</b> | Pre-existing skin disorders may be aggravated by over-exposure to this product.  |

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## SECTION 12: ECOLOGICAL INFORMATION

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### Ecological Information

#### Environmental effects

No data on the product itself. May be harmful to the environment if released in large quantities.

#### Aquatic ecotoxicity

No data on specific product.

#### Ecotoxicity

##### Aquatic

#### Toxicity to Fish

| Product/ingredient name     | Test             | Species                              | Dose        | Exposure |
|-----------------------------|------------------|--------------------------------------|-------------|----------|
| 1-Butanol                   | LC <sub>50</sub> | Pamephales promelas (fathead minnow) | 1,376 mg/l  | 96 h     |
| Ethylbenzene                | LC <sub>50</sub> | Oncorhynchus mykiss (rainbow trout)  | 10,733 mg/l | 96 h     |
| Phenol                      | LC <sub>50</sub> | Oncorhynchus mykiss (rainbow trout)  | 0.12 mg/l   | 96 h     |
| Xylenes                     | LC <sub>50</sub> | Oncorhynchus mykiss (rainbow trout)  | 2.6 mg/l    | 96 h     |
| 1,3-Bis(aminomethyl)benzene | LC <sub>50</sub> | Oncorhynchus mykiss (rainbow trout)  | >100 mg/l   | 96 h     |

#### Toxicity to aquatic invertebrates

| Product/ingredient name | Test             | Species                    | Dose        | Exposure |
|-------------------------|------------------|----------------------------|-------------|----------|
| 1-Butanol               | EC <sub>50</sub> | Daphnia magna (water flea) | 1.328 mg/l  | 24 h     |
| Ethylbenzene            | EC <sub>50</sub> | Daphnia magna (water flea) | 77,000 mg/l | 24 h     |

|                             |                  |                            |           |      |
|-----------------------------|------------------|----------------------------|-----------|------|
| Phenol                      | EC <sub>50</sub> | Daphnia magna (water flea) | 7 mg/l    | 48 h |
| Xylenes                     | EC <sub>50</sub> | Daphnia magna (water flea) | 1.0 mg/l  | 24 h |
| 1,3-Bis(aminomethyl)benzene | EC <sub>50</sub> | No data available          | 6.77 mg/l | 48 h |

### Persistence and degradability

| Product/ingredient name     | Test              | Concentration | Result                    |
|-----------------------------|-------------------|---------------|---------------------------|
| 1-Buranol                   | Anaerobic 19-days | 98%           | Readily biodegradable     |
| Ethylbenzene                | Anaerobic 20-days | 10%           | Readily biodegradable     |
| Phenol                      | Anaerobic 14-days | 85%           | Readily biodegradable     |
| Xylenes                     | Anaerobic 20-days | 72%           | Readily biodegradable     |
| 1,3-Bis(aminomethyl)benzene | Anaerobic 28-days | 49%           | Not readily biodegradable |

### Bioaccumulative potential

| Product/ingredient name     | Log K <sub>ow</sub> | BCF  | Potential |
|-----------------------------|---------------------|------|-----------|
| 1-Butanol                   | 0.88                | 3.16 | Low       |
| Ethylbenzene                | 3.15                | 15   | Low       |
| Phenol                      | 1.47                | 17.5 | Low       |
| Xylenes                     | 3.12                | 2.14 | Low       |
| 1,3-Bis(aminomethyl)benzene | 0.18                | <2.7 | Low       |

### Mobility in soil

| Product/ingredient name     |                   |
|-----------------------------|-------------------|
| 1-Butanol                   | Readily mobile    |
| Ethylbenzene                | Moderate mobility |
| Phenol                      | Slight mobility   |
| Xylenes                     | Moderate mobility |
| 1,3-Bis(aminomethyl)benzene | No data available |

### Other adverse affects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste Disposal Method

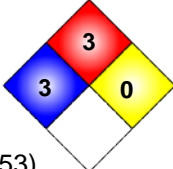
**EMPTY CONTAINERS RETAIN PRODUCT RESIDUE AND CAN BE HAZARDOUS. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE SAFETY DATA SHEET (SDS) MUST BE OBSERVED** Consult local, state and federal hazardous waste regulators before disposing of waste materials. The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions, and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. **DISPOSE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS ONLY.**

## 14. TRANSPORT INFORMATION

### U.S. DEPARTMENT OF TRANSPORTATION



|                      |  |
|----------------------|--|
| Proper Shipping Name | Amines, Flammable, Corrosive, n.o.s.<br>(1,3-Bis(aminomethyl)benzene solution) |
| Hazard Class         | 3 (8)  |
| ID Number            | UN2733   |
| Packing Group        | III  |
| Emergency phone      | +1-352-323-3500 (U.S. Toll Free: 800-535-5053)                                 |

**NFPA Rating**



**HMIS**

|    |                     |
|----|---------------------|
| 3* | Health              |
| 3  | Flammability        |
| 0  | Physical Hazard     |
| J  | Personal Protection |



**TRANSPORT CANADA**

Proper Shipping Name Amines, Flammable, Corrosive, n.o.s. (1,3-Bis(aminomethyl)benzene solution)  
 Hazard Class 3 (8)  
 ID Number UN2733  
 Packing Group III  
 Emergency phone +1-352-323-3500 (U.S. Toll Free: 800-535-5053)

**IMO/IMDG**

Proper Shipping Name Amines, Flammable, Corrosive, n.o.s. (1,3-Bis(aminomethyl)benzene solution)  
 Hazard Class 3 (8)  
 ID Number UN2733  
 Packing Group III  
 Emergency phone +1-352-323-3500 (U.S. Toll Free: 800-535-5053)  
 Stowage and segregation Category A "Separated from" acids.  
 EmS Fire / EmS Spill F-E / S-C

**IATA/DGR**

Proper Shipping Name Amines, Flammable, Corrosive, n.o.s. (1,3-Bis(aminomethyl)benzene solution)  
 Hazard Class 3 (8)  
 ID Number UN2733  
 Packing Group III  
 Emergency phone +1-352-323-3500 (U.S. Toll Free: 800-535-5053)  
 Passenger and Cargo Aircraft Quantity limitation: 2.6 US-Gal (5 L)  
 Packaging instruction: 354  
 Special Provisions: A3  
 Cargo Aircraft Only Quantity limitation: None  
 Packaging instruction: None  
 Special Provisions: None

**MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES**

Nombre propio del transporte Aminas, inflamables, corrosivas, n.e.p. (1,3-Bis (aminometil) solución de benceno)  
 Clase de peligro 3 (8)  
 Número de identificación del UN2733  
 Grupo de embalaje III  
 teléfono de emergencia +1-352-323-3500 (U.S. Toll Free: 800-535-5053)

***Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.***

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**SECTION 15: REGULATORY INFORMATION**

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**U.S. FEDERAL REGULATIONS****U.S. Department of Labor, Occupational Safety & Health Administration (OSHA)**

Hazard Communication Standard (HCS) Classification: See Section 2 above  
 Effective 26 March 2012, OSHA modified its Hazard Communication Standard (HCS), **29 CFR Parts 1910, 1915, and 1926**, to conform to the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

**Emergency Planning and Community Right-to-Know Act (EPCRA)**  
42 U.S.C., Chapter 116

**Sections: 302/304 Extremely Hazardous Substances (EHS):**

Extremely Hazardous Substances (EHSs), (40 CFR Part 302, Table 302.4)

| <u>Ingredient(s)</u> | <u>CAS No.</u> |
|----------------------|----------------|
| 1-Butanol            | 71-36-3        |
| Ethylbenzene         | 100-41-4       |
| Phenol               | 108-95-2       |
| Xylenes              | 1330-20-7      |

**Sections 311/312 Community Right-To-Know Hazard Categories**

Extremely Hazardous Substances (EHSs), (40 CFR Part 355, Appendix A and Appendix B)

|             |                                    |     |
|-------------|------------------------------------|-----|
| Category A: | Immediate (Acute) Health Hazard:   | Yes |
| Category D: | Delayed (Chronic) Health Hazard:   | Yes |
| Category F: | Fire Hazard:                       | Yes |
| Category R: | Reactive Hazard:                   | No  |
| Category S: | Sudden Release of Pressure Hazard: | No  |

| <u>Ingredient(s)</u> | <u>CAS No.</u> | <u>Category</u> |
|----------------------|----------------|-----------------|
| 1-Butanol            | 71-36-3        | A, F            |
| Ethylbenzene         | 100-41-4       | A, D, F         |
| Phenol               | 108-95-2       | A, D            |
| Xylenes              | 1330-20-7      | A, D, F         |

**Section: 313 Toxics Release Inventory (TRI) Reportable Ingredients:**

Extremely Hazardous Substances (EHSs), (40 CFR Part 372, Subpart D)

| <u>Ingredient(s)</u> | <u>CAS No.</u> |
|----------------------|----------------|
| 1-Butanol            | 71-36-3        |
| Ethylbenzene         | 108-88-3       |
| Phenol               | 108-95-2       |
| Xylenes              | 1330-20-7      |

**State Regulations**

**USA, California State Safe Drinking & Toxic Enforcement Act (Proposition 65):** This product may contain chemical(s) known to the State of California to cause cancer and/or birth defects or other reproductive harm.

| <u>Ingredient(s)</u> | <u>CAS No.</u> |
|----------------------|----------------|
| Ethylbenzene         | 100-41-4       |

**USA, Louisiana Right-to-Know Hazardous Substance List (RTKHSL) Components:**

| <u>Ingredient(s)</u> | <u>CAS No.</u> |
|----------------------|----------------|
| Phenol               | 108-95-2       |

**USA, Massachusetts Environmental Policy Act (MEPA), 301 CMR 41.00 components:**

| <u>Ingredient(s)</u> | <u>CAS No.</u> |
|----------------------|----------------|
| 1-Butanol            | 71-36-3        |

**USA, Michigan Critical Materials Register (CMR) Components:**

| <u>Ingredient(s)</u> | <u>CAS No.</u> |
|----------------------|----------------|
| Xylenes              | 1330-20-7      |

**USA, New Jersey Right to Know Hazardous Substance List (RTKHSL) Components:**

| <u>Ingredient(s)</u>        | <u>CAS No.</u> |
|-----------------------------|----------------|
| 1-Butanol                   | 71-36-3        |
| Ethylbenzene                | 100-41-4       |
| Phenol                      | 108-95-2       |
| Xylenes                     | 1330-20-7      |
| 1,3-Bis(aminomethyl)benzene | 1477-55-0      |

**USA, Pennsylvania Right-to-Know Hazardous Substance List (RTKHSL) Components:**

| <u>Ingredient(s)</u>        | <u>CAS No.</u> |
|-----------------------------|----------------|
| 1-Butanol                   | 71-36-3        |
| Ethylbenzene                | 100-41-4       |
| Phenol                      | 108-95-2       |
| Xylenes                     | 1330-20-7      |
| 1,3-Bis(aminomethyl)benzene | 1477-55-0      |

**Product specific health and safety data in other sections of this Safety Data Sheet (SDS) may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.**

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**SECTION 16: OTHER INFORMATION**

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**Preparation Information**

This Safety Data Sheet (SDS) has been prepared by CORCHEM<sup>®</sup> Corporation.

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