

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

GHS Product Code: C247-A-0C0
 Product Name: CORCHEM® 247 COAL TAR EPOXY COMPONENT A, 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: 3-07172015

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

GHS Classification

- Category 1 Skin sensitization
Serious eye damage
- Category 1B Skin corrosion
- Category 2 Acute toxicity – Inhalation
Acute toxicity – Reproductive system
- Category 3 Specific target organ toxicity – single exposure
STOT-SE - Respiratory system
Acute toxicity – Aquatic
Chronic toxicity – Aquatic

GHS Label elements, including precautionary statements

Hazard Pictograms



Signal word: **Danger**

GHS Hazard statement(s)

- H302: Harmful if swallowed.
- H312: Harmful in contact with skin.
- H314: Causes severe skin burns and eye damage.
- H317: May cause an allergic skin reaction.
- H330: Fatal if inhaled.
- H335: May cause respiratory irritation.
- H361: Suspected of damaging fertility or the unborn child.
- H411: Toxic to aquatic life with long lasting effects.

NFPA Rating

HMIS

3*	Health
1	Flammability
0	Physical Hazard
J	Personal Protection

PERSONAL PROTECTION INDEX			
A	Goggles	G	Goggles + Gloves + Respirator
B	Goggles + Gloves	H	Apron + Gloves + Boots + Respirator
C	Goggles + Gloves + Wash	I	Goggles + Gloves + Respirator
D	Face Shield + Gloves + Wash	J	Apron + Gloves + Boots + Respirator
E	Goggles + Gloves + Wash + Face Shield	K	Apron + Gloves + Boots + Respirator
F	Goggles + Gloves + Wash + Face Shield + Respirator	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	Active Hood or Mask
Additional Information			



GHS Precautionary statement(s)

P102:	Keep out of reach of children
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.
P234:	Keep only in original container.
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.
P273:	Avoid release to the environment.
P280:	Wear protective gloves/protective clothing/eye protection/face protection.
P281:	Use personal protective as required.
P284:	Wear respiratory protection.
P301+310:	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+330+331:	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353:	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P310:	IF INHALED: Immediately call a POISON CENTER or doctor/physician.
P304+340:	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.
P337+313:	If eye irritation persists get medical advice/attention.
P363:	Wash contaminated clothing before reuse.
P401:	Store protected at temperatures between 40°F (4°C) and 100°F (38°C).
P405:	Store locked up.
P410:	Protect from sunlight.
P501:	Dispose of contents/container to comply with the requirements of environmental protection and waste disposal legislation and any regional, local authority requirements.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient(s)</u>	<u>CAS No.</u>	<u>% (by Weight)</u>
4,4'-Isopropylidenediphenol	80-05-7	<25
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	>15
Diethylenetriamine	111-40-0	>25
Bis((dimethylamino)methyl)phenol	71074-89-0	<10
CBI Additives [NOT REGULATED BY GHS, DOT, IMDG, OR IATA]	MIXTURE	<25

SECTION 4: FIRST AID MEASURES

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

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.

Inhalation

Seek medical attention. 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.

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.

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.

SECTION 5: FIRE-FIGHTING MEASURES

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.** May generate ammonia gas. May generate toxic nitrogen oxide gases. 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). Avoid contact with skin. A face shield should be worn. Use personal protective equipment.

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

Flash point

Estimated: Closed Cup: >200°F (>93°C)

Explosive limit

Not established

Autoignition temperature

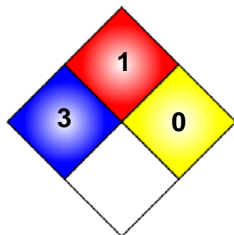
Not Established

Fire and explosion hazards

In a fire or if heated, a pressure increase will occur and the container may burst.

NFPA Rating

Health:	3
Flammability:	1
Reactivity:	0
Special:	



SECTION 6: ACCIDENTAL RELEASE MEASURES

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

DO NOT ALLOW RELEASE INTO THE ENVIRONMENT. 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 DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS.

SECTION 7: HANDLING AND STORAGE

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 or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

OPENED, PARTIAL, AND 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 THIS SAFETY DATA SHEET (SDS) MUST BE OBSERVED.

Storage

STORE IN ORIGINAL CONTAINERS AWAY FROM INCOMPATIBLE MATERIALS, DIRECT SUNLIGHT, FLAMES, AND ALL SOURCES OF HEAT. Store in accordance with local regulations. Store in a dry, cool, climate controlled area between 40°F (8°C) and 100°F (31°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.

OPENED, PARTIAL, AND 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 THIS SAFETY DATA SHEET (SDS) MUST BE OBSERVED.

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, causing 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.

OPENED, PARTIAL, AND 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 THIS SAFETY DATA SHEET (SDS) MUST BE OBSERVED.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limit(s)

<u>Components</u>	<u>Basis</u>	<u>Authority</u>	<u>Control Parameters</u>
4,4'-Isopropylidenediphenol	Time Weighted Average (TWA):	OSHA Z1A	Not listed
4,4'-Isopropylidenediphenol	Recommended exposure limit (REL):	NIOSH	Not listed
4,4'-Isopropylidenediphenol	Threshold Limit Value (TLV):	ACGIH	Not listed
4,4'-Isopropylidenediphenol	Immediately Dangerous to Life and Health (IDLH):	NIOSH	Not determined
2,4,6-tris(dimethylaminomethyl)phenol	Time Weighted Average (TWA):	OSHA Z1A	Not listed
2,4,6-tris(dimethylaminomethyl)phenol	Recommended exposure limit (REL):	NIOSH	Not listed
2,4,6-tris(dimethylaminomethyl)phenol	Threshold Limit Value (TLV):	ACGIH	Not listed
2,4,6-tris(dimethylaminomethyl)phenol	Immediately Dangerous to Life and Health (IDLH):	NIOSH	Not determined
Diethylenetriamine	Time Weighted Average (TWA):	OSHA Z1A	1 ppm 4 mg/m ³
Diethylenetriamine	Recommended exposure limit (REL):	NIOSH	1 ppm 4 mg/m ³
Diethylenetriamine	Threshold Limit Value (TLV):	ACGIH	1 ppm 4 mg/m ³
Diethylenetriamine	Immediately Dangerous to Life and Health (IDLH):	NIOSH	Not determined
Bis((dimethylamino)methyl)phenol	Time Weighted Average (TWA):	OSHA Z-1	Not listed
Bis((dimethylamino)methyl)phenol	Recommended exposure limit (REL):	NIOSH	Not listed
Bis((dimethylamino)methyl)phenol	Threshold Limit Value (TLV):	ACGIH	Not listed
Bis((dimethylamino)methyl)phenol	Immediately Dangerous to Life and Health (IDLH):	NIOSH	Not determined

Exposure Guidelines

Consult local authorities for acceptable exposure limits.

Personal Protective Equipment (PPE)**Respiratory Protection**

When utilizing this material wear a NIOSH approved cartridge respirator or gas mask suitable to keep airborne mists and vapor concentration below the time-weighted threshold limit values. **WHEN USING IN POORLY VENTILATED OR CONFINED SPACES, USE A FRESH-AIR SUPPLYING RESPIRATOR OR A SELF-CONTAINED BREATHING APPARATUS.**

Skin Protection

To prevent repeated or prolonged skin contact, wear appropriate safety garments such as impervious gloves, head/neck covers, aprons, jackets, pants, coveralls, and boots. Replace defective PPE and/or spoiled garments/boots.

Eye Protection

Chemical splash goggles and face shield in compliance with OSHA regulations are advised for eye protection. Provide readily accessible eye wash stations and safety showers.

Engineering Controls

Use explosion-proof suction type exhaust fans and blowers with sufficient CFM capacity to keep solvent vapors below 20% of the explosive limit.

Provide sufficient mechanical ventilation to maintain exposure below TLV(s).

Provide readily accessible eye wash stations and safety showers.

Other Protective Clothing or Equipment

Use protective barrier creams on exposed skin areas.

Work Hygienic Practices

As with all products of this nature, good personal hygiene is essential. Hands and other exposed areas should be washed thoroughly with soap and water after contact, and before eating, drinking, using tobacco products or restrooms. Regular laundering of contaminated clothing is essential to reduce indirect skin contact with this material.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.):	Viscous amber liquid
Odor:	Ammoniacal, amine-like
Odor Threshold:	Not available
pH:	Alkaline

Melting Point / Freezing Point:	Not available
Initial Boiling Point and Range:	> 400° F (> 200° C)
Flash Point:	>200°F (>93°C) (method: closed cup)
Evaporation Rate:	Not available.
Flammability (solid, gas):	Not applicable.
Upper/Lower flammability or explosive limits:	Not available.
Vapor Pressure:	< 1.00 mmHg at 70° F (21° C)
Vapor Density (air = 1):	> 1.00 at 70° F (21° C)
Relative Density (water = 1):	> 1.00 at 70° F (21° C)
Solubility (in water):	Soluble
Partition coefficient: <i>n</i>- octanol/water:	Not available.
Auto-ignition temperature:	>700° F (371° C)
Decomposition Temperature:	Not available.
Volatile Organic Compounds (VOC):	0.00 lbs. per gallon
Percent solids by weight:	100
Percent solids by volume:	100
Specific Gravity:	1.044 @ 70° F (21° C)
Weight per gallon:	8.71

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal conditions.

Possibility of hazardous reactions:

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid:

Reactive metals, i.e., sodium, calcium, zinc. Product slowly corrodes, copper, aluminum, zinc, and galvanized surfaces. Organic acids, i.e., acetic acid, citric acid, etc. Mineral acids, i.e., Hydrochloric acid (HCl), Nitric acid (HNO₃), Sulfuric acid (H₂SO₄). Nitrous acid and other nitrosating agents. CAUTION! N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrates, or atmospheres with high nitrous oxide concentrations. Sodium hypochlorite. Oxidizing agents. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion.

Incompatible materials:

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.), materials reactive with hydroxyl compounds.

Hazardous Polymerization:

Under normal conditions of storage and use, hazardous polymerization will not occur.

Hazardous Decomposition or By-Products:

Under normal conditions of storage and use, hazardous decomposition products include; nitric acid, ammonia, nitrogen oxides (NO_x), nitrosamine. Nitrogen oxide can react with water vapors to form corrosive nitric acid. Carbon monoxide, carbon dioxide (CO₂), aldehydes, flammable hydrocarbon fragments, chlorine.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological Information

Likely routes of exposure and potential health effects

- Ingestion:** Harmful if swallowed. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
- Skin:** Harmful in contact with skin. Causes skin burns. If absorbed through the skin, may cause central nervous system effects, such as headache, nausea, dizziness, confusion, and/or breathing difficulties. Symptoms of overexposure may be headache, dizziness, tiredness, nausea, and vomiting.
- Eyes:** Causes eye burns. May cause blindness. Corneal edema may give rise to a perception of "blue haze" or fog around lights. Exposed individuals may see rings around bright lights. This effect is

temporary and has no known residual effect. Product vapor can cause glaucopsia (corneal edema) when absorbed into the tissue of the eye from the atmosphere.

Inhalation: Highly toxic by inhalation. This product contains a component that is highly toxic by inhalation when aerosolized or sprayed. Please refer to section 11 of this SDS for toxicity information. Review the toxicity information against your intended use. If product is not being aerosolized or sprayed, the inhalation toxicity may not be applicable. Inhalation of vapors and/or aerosols in high concentration may cause irritation to the respiratory system. Inhalation of aerosol may cause irritation to the upper respiratory tract. May cause nose, throat, and lung irritation. Can cause severe eye, skin, and respiratory tract burns.

Acute Toxicity Data

Product/ingredient name	Method	Species	Dose	Exposure	Result
4,4'-Isopropylidenediphenol	LC ₅₀ Inhalation	Rat	No data	–	–
4,4'-Isopropylidenediphenol	LD ₅₀ Oral	Rat	>5,000 mg/kg	–	–
4,4'-Isopropylidenediphenol	LD ₅₀ Dermal	Rabbit	>3,000 mg/kg	–	–
2,4,6-tris(dimethylaminomethyl)phenol	LC ₅₀ Inhalation	Mouse	320 mg/l	4 h	–
2,4,6-tris(dimethylaminomethyl)phenol	LD ₅₀ Oral	Rat	2,737 mg/kg	–	–
2,4,6-tris(dimethylaminomethyl)phenol	LD ₅₀ Dermal	Rabbit	6,480 mg/kg	–	–
Diethylenetriamine	LC ₅₀ Inhalation	Rat	>0.03 mg/l	4 h	Acute edema
Diethylenetriamine	LD ₅₀ Oral	Rat	>2,000 mg/kg	–	Seizure
Diethylenetriamine	LD ₅₀ Dermal	Rabbit	>1,000 mg/kg	–	–
Bis((dimethylamino)methyl)phenol	LC ₅₀ Inhalation	Rat	>700 ppm	1 h	Resp. disorder
Bis((dimethylamino)methyl)phenol	LD ₅₀ Oral	Rat	>900 mg/kg	–	–
Bis((dimethylamino)methyl)phenol	LD ₅₀ Dermal	Rabbit	>2,000 mg/kg	–	–

Potential chronic health effects

Skin corrosion / irritation

Severe skin irritation

Serious eye damage / irritation

Severe eye irritation. May cause irreversible eye damage.

Respiratory or skin sensitization

May cause sensitization by skin contact. Pre-existing skin disorders may be aggravated by over-exposure to this product.

Germ cell mutagenicity

In vitro genetic toxicity studies were inconclusive. Animal genetic toxicity studies were inconclusive.

Product/ingredient name	Test	Result
4,4'-Isopropylidenediphenol	No data available.	
2,4,6-tris(dimethylaminomethyl)phenol	No data available.	
Diethylenetriamine	No data available.	
Bis((dimethylamino)methyl)phenol	No data available.	

OECD: Organization for Economic Cooperation and Development.

Carcinogenicity

Product/ingredient name	Classification	Listing Body
4,4'-Isopropylidenediphenol	Not listed	IARC
4,4'-Isopropylidenediphenol	Not listed	NTP
2,4,6-tris(dimethylaminomethyl)phenol	Not listed	IARC
2,4,6-tris(dimethylaminomethyl)phenol	Not listed	NTP
Diethylenetriamine	Not listed	IARC
Diethylenetriamine	Not listed	NTP
Bis((dimethylamino)methyl)phenol	Not listed	IARC
Bis((dimethylamino)methyl)phenol	Not listed	NTP

IARC: World Health Organization's (WHO) International Agency for Research on Cancer.

NTP: U.S. Department of Health and Human Services' (DHHS) National Toxicology Program.

Reproductive toxicity

No known significant effects or critical hazards on the product itself.

Product/ingredient name	Test	Result
4,4'-Isopropylidenediphenol	OECD 414	Negative
2,4,6-tris(dimethylaminomethyl)phenol	OECD 414	No data available
Diethylenetriamine	OECD 414	No data available
Bis((dimethylamino)methyl)phenol	OECD 414	No data available

OCED: Organization for Economic Cooperation and Development.

Specific Target Organ Toxicity, Single Exposure (STOT-SE)

Can cause severe eye, skin, and respiratory tract burns. May cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties.

Specific Target Organ Toxicity, Repeated Exposure (STOT-RE)

No additional data available.

Aspiration hazard

No data available

SECTION 12: ECOLOGICAL INFORMATION

Ecological Information

Environmental effects

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

Ecotoxicity

Aquatic Toxicity

Toxicity to Fish

Product/ingredient name	Test	Species	Dose	Exposure
4,4'-Isopropylidenediphenol	LC ₅₀	Cyprinodon variegatus (sheepshead minnow)	>10 mg/l	96 h
2,4,6-tris(dimethylaminomethyl)phenol	LC ₅₀	Salmo gairdneri (rainbow trout)	320 mg/l	96 h
Diethylenetriamine	LC ₅₀	Poecillia reticulata (guppy)	1000 mg/l	96 h
Bis((dimethylamino)methyl)phenol	LC ₅₀			

Toxicity to aquatic invertebrates

Product/ingredient name	Test	Species	Dose	Exposure
4,4'-Isopropylidenediphenol	EC ₅₀	Daphnia magna (water flea)	>10 mg/l	48 h
2,4,6-tris(dimethylaminomethyl)phenol	EC ₅₀	Palaemonetes vulgaris (grass shrimp)	>750 mg/l	48 h
Diethylenetriamine	EC ₅₀	No data available	–	–
Bis((dimethylamino)methyl)phenol	EC ₅₀	No data available	–	–

Persistence and degradability

Product/ingredient name	Test	Concentration	Result
4,4'-Isopropylidenediphenol	Aerobic	89% – 28 days	Readily biodegradable
2,4,6-tris(dimethylaminomethyl)phenol	Aerobic	4% – 28 days	Not readily biodegradable
Diethylenetriamine	Aerobic	70% – 28 days	Readily biodegradable
Bis((dimethylamino)methyl)phenol	Aerobic	5% – 28 days	Readily biodegradable

Bioaccumulative potential

Product/ingredient name	Log K _{ow}	BCF	Potential
4,4'-Isopropylidenediphenol	3.32	3.5	Low
2,4,6-tris(dimethylaminomethyl)phenol	-0.66	1.9	Low

Diethylenetriamine	-1.32	1.7	Low
Bis((dimethylamino)methyl)phenol	-0.66	-	-

Mobility in soil

Product/ingredient name

4,4'-Isopropylidenediphenol	Moderate mobility
2,4,6-tris(dimethylaminomethyl)phenol	Moderate mobility
Diethylenetriamine	No data available.
Bis((dimethylamino)methyl)phenol	No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

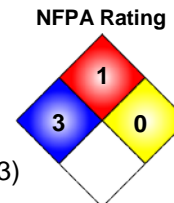
Waste Disposal Method

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	Diethylenetriamine solution
Hazard Class	8
ID Number	UN2079
Packing Group	II
Emergency phone	+1-352-323-3500 (US Toll Free: 800-535-5053)



HMIS	
3*	Health
1	Flammability
0	Physical Hazard
J	Personal Protection



TRANSPORT CANADA

Proper Shipping Name	Diethylenetriamine solution
Hazard Class	8
ID Number	UN2079
Packing Group	II
Emergency phone	+1-352-323-3500 (US Toll Free: 800-535-5053)

IMO/IMDG

Proper Shipping Name	Diethylenetriamine solution
Hazard Class	8
ID Number	UN2079
Packing Group	II
Emergency phone	+1-352-323-3500 (US Toll Free: 800-535-5053)
Stowage and segregation	A – Clear of living quarters. “Separated from acids”
EmS Fire / EmS Spill	F-A / S-B

IATA/DGR

Proper Shipping Name	Diethylenetriamine solution
Hazard Class	8
ID Number	UN2079
Packing Group	II
Emergency phone	+1-352-323-3500 (US Toll Free: 800-535-5053)
Passenger and Cargo Aircraft	Quantity limitation: 0.264 US-Gal (1 L) Packaging instruction: 851
Cargo Aircraft Only	Quantity limitation: 7.925 US-Gal (30 L) Packaging instruction: 855

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Nombre propio del transporte solución Dietilentriamina
 Clase de peligro 8
 Número de identificación del UN2079
 Grupo de embalaje II
 teléfono de emergencia +1-352-323-3500 (US 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.

SECTION 15: REGULATORY INFORMATION

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. Code, Chapter 116

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

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

Ingredient(s) CAS No.

— —

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>
4,4'-Isopropylidenediphenol	80-05-7	A, D
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	A, D
Diethylenetriamine	111-40-0	A, D
Bis((dimethylamino)methyl)phenol	71074-89-0	A, D

NOTE: THE INFORMATION ABOVE IS PROVIDED FOR ADVISORY PURPOSES ONLY.

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

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

Ingredient(s) CAS No.
 4,4'-Isopropylidenediphenol 80-05-7

Clean Air Act

42 U.S. Code, Chapter 85

Section 111 Volatile Organic Compound (VOC) Content Limits:

40 CFR Part 59, Subpart D, Table 1

Volatile Organic Compounds (VOC): 0.00 g/l, (0.00 lb/gal)

Section 112(b) Hazardous Air Pollutants (HAPs):

42 U.S. Code § 7412 - Hazardous air pollutants

Ingredient(s) CAS No.

— —

Ozone Depleting Substances (ODS):

42 U.S. Code § 7671a - Listing of class I and class II substances

<u>Ingredient(s)</u>	<u>CAS No.</u>
-	-

State Regulations

USA, California State Safe Drinking & Toxic Enforcement Act (Proposition 65): This product contains a chemical known to the State of California to cause cancer, birth defects, or any other harm.

<u>Ingredient(s)</u>	<u>CAS No.</u>
-	-

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

<u>Ingredient(s)</u>	<u>CAS No.</u>
-	-

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

<u>Ingredient(s)</u>	<u>CAS No.</u>
-	-

USA, Michigan Critical Materials Register (CMR) Components:

<u>Ingredient(s)</u>	<u>CAS No.</u>
-	-

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

<u>Ingredient(s)</u>	<u>CAS No.</u>
4,4'-Isopropylidenediphenol	80-05-7
Diethylenetriamine	111-40-0

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

<u>Ingredient(s)</u>	<u>CAS No.</u>
4,4'-Isopropylidenediphenol	80-05-7
Diethylenetriamine	111-40-0

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.

SECTION 16: OTHER INFORMATION

Preparation Information

This MSDS has been prepared by CORCHEM® Corporation.

Revision: 3-07172015, Product Code: C247-A-0C0

DISCLAIMER: All information contained herein is based upon data obtained from CORCHEM's suppliers and/or recognized technical sources.

The data in this MSDS relates only to the specific material designated herein and does not relate to its use in combination with any other material or in any other process.

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of CORCHEM® Corporation.

