

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

GHS Product Code: C232-A-0C0
 Product Name: CORCHEM® 232 VAPOR / GAS LINING 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)
 Contract No.: 74435
 Revision: 5-06252024

SECTION 2: HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

GHS Classification

- Category: 1 Serious eye damage
 Skin sensitization
- Category: 2 Flammable liquid and vapor.
- Category: 4 Harmful if inhaled
 Harmful in contact with skin
 Harmful if swallowed

Hazard categories & statement(s)

Hazard Pictograms



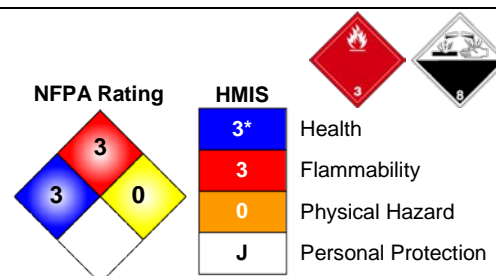
Signal word: **Warning**

GHS Hazard statement(s)

- H226: Flammable liquid and vapour
- H305: May be harmful if swallowed and enters airways
- H312: Harmful in contact with skin
- H318: Causes serious eye damage
- H332: Harmful if inhaled
- H401: Toxic to aquatic life

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



PERSONAL PROTECTION INDEX			
A		G	
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F		X	Consult your supervisor or S.O.P. for "SPECIAL" handling directions
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t		U	
o		w	
p		y	
q		z	
r			
s			



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- P261 Avoid breathing 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.
 P284: Wear respiratory protection
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient(s)</u>	<u>CAS No.</u>	<u>% (by Weight)</u>
1-Hydroxybutane	71-36-3	>20
Phenol, 4,4'-(-1methylethylidene)bis-	80-05-7	>10
2-Methyl-4-Pentone	108-10-1	<10
1-Methylbenzene	108-88-3	>20
Diethylenetriamine	111-40-0	<40

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

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

Flash Point

Estimated: Open Cup: 95°F – 100°F (35°C – 37°C)

Explosive Limit

Not established

Autoignition Temperature

Not Established

Hazardous Products of 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.

Fire and Explosion Hazards

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

Extinguishing Media

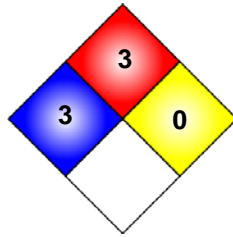
Alcohol-resistant foam, water-fog, carbon dioxide, dry chemicals, dry sand, Limestone powder.

Fire Fighting Instructions

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

NFPA Rating

Health:	3
Flammability:	3
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. Put on 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).

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.

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.

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.

Storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool, well-ventilated area, 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, 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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit(s)

<u>Components</u>	<u>Basis</u>	<u>Control Parameters</u>	
1-Hydroxybutane	Time Weighted Average (TWA): ACGIH	50 ppm	205 mg/m ³
1-Hydroxybutane	Time Weighted Average (TWA): OSHA Z-1	100 ppm	300 mg/m ³
2-Methyl-4-Pentone	Time Weighted Average (TWA): ACGIH	50 ppm	205 mg/m ³
2-Methyl-4-Pentone	Short Term Exposure Limit (STEL): ACGIH	75 ppm	300 mg/m ³
2-Methyl-4-Pentone	Time Weighted Average (TWA): OSHA Z-1	50 ppm	205 mg/m ³
2-Methyl-4-Pentone	Short Term Exposure Limit (STEL): OSHA Z-1	75 ppm	300 mg/m ³
1-Methylbenzene	Time Weighted Average (TWA): OSHA Z-1	100 ppm	375 mg/m ³
1-Methylbenzene	Time Weighted Average (TWA): ACGIH	20 ppm	76 mg/m ³
1-Methylbenzene	Short Term Exposure Limit (STEL): OSHA Z-1	150 ppm	560 mg/m ³
1-Methylbenzene	Ceiling Limit (CEIL): OSHA Z-2	300 ppm	1,130 mg/m ³
Diethylenetriamine	Time Weighted Average (TWA): ACGIH	1 ppm	4 mg/m ³
Diethylenetriamine	Recommended exposure limit (REL): NIOSH	1 ppm	4 mg/m ³
Diethylenetriamine	Time Weighted Average (TWA): OSHA Z1A	1 ppm	4 mg/m ³
Diethylenetriamine	Permissible Exposure Limit (PEL): US CA OEL	1 ppm	4 mg/m ³

Consult local authorities for acceptable exposure limits.

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.

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.**

Eye Protection

Chemical splash goggles and face shield in compliance with OSHA regulations are advised for eye protection.

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).

Exposure Guidelines

Consult local authorities for acceptable exposure limits

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 clear liquid
Odor:	Slight
Odor Threshold:	Not available
pH:	Alkaline
Melting Point / Freezing Point:	Not Available
Initial Boiling Point and Range:	> 219° F (> 103° C)
Flash Point:	Estimated Open Cup: 95° – 100°F (35° – 37°C)
Evaporation Rate:	Not available.
Flammability (solid, gas):	Not applicable
Upper/Lower flammability or explosive limits:	1.1 % (V) / 11.2 % (V)
Vapor Pressure:	< 1.00 mmHg at 70° F (21° C)
Vapor Density:	67.422 lb/ft ³ (1.08 g/cm ³) at 70° F (21° C)
Relative Density:	1.21 g/cm ³
Solubility:	Soluble
Partition coefficient: <i>n</i>- octanol/water:	Not available.
Auto-ignition temperature:	995 ° F (535° C)
Decomposition Temperature:	Not available.
Volatile Organic Compounds (VOC):	5.01lbs. per gallon
Percent solids by weight:	33.16
Percent solids by volume:	27.82
Specific Gravity:	0.898 @ 68.0° F (20.00° C)
Weight per gallon:	7.50

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, Incompatibility (Material to Avoid):

Amines, 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 (e.g. 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 should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

Potential acute health effects

- Ingestion:** Harmful if swallowed, contact poison center immediately.
- Skin:** Severely irritating to the skin. May cause sensitization by skin contact.
- Inhalation:** Vapors and/or fumes may be harmful. Wear appropriate personal protective equipment..
- Eyes:** Severely irritating to eyes, may cause eye damage.

Acute Toxicity Data

Product/ingredient name	Method	Species	Dose	Exposure	Result
1-Hydroxybutane	LD ₅₀ Oral	Rat	>700 mg/kg	-	-
1-Hydroxybutane	LC ₅₀ Inhalation	Rat	>8,000 mg/l	4 h	-
1-Hydroxybutane	LD ₅₀ Dermal	Rabbit	>3,000 mg/kg	-	-
1-Methylbenzene	LC ₅₀ Oral	Rat	>5,000 mg/m ³	-	-
1-Methylbenzene	LC ₅₀ Inhalation	Rat	>12,000 mg/m ³	4 h	-
1-Methylbenzene	LD ₅₀ Dermal	Rabbit	>12,000 mg/m ³	24 h	Skin irritation
2-Methyl-4-pentanone	LC ₅₀ Oral	Rat	>2,000 mg/kg	-	-
2-Methyl-4-pentanone	LD ₅₀ Inhalation	Rat	>2,000 ppm	4 h	-
2-Methyl-4-pentanone	LD ₅₀ Dermal	Rabbit	>3,000 mg/kg	-	-
Diethylenetriamine	LC ₅₀ Oral	Rat	>2,000 mg/kg	-	-
Diethylenetriamine	LC ₅₀ Inhalation	Rat	>0.07 mg/l	4 h	-
Diethylenetriamine	LD ₅₀ Dermal	Rabbit	>2,000 mg/kg	-	-

Potential chronic health effects

- Chronic effects:** Once sensitized, a severe allergic reaction may occur when subsequently exposed.
- Target organs:** Liver, Kidney
- Carcinogenicity:** No known significant effects or critical hazards.
- Mutagenicity:** No known significant effects or critical hazards.
- Teratogenicity:** No known significant effects or critical hazards.
- Fertility effects:** No known significant effects or critical hazards.
- Developmental effects** No known significant effects or critical hazards.
- Medical conditions aggravated by over- exposure:** Pre-existing skin disorders may be aggravated by over-exposure to this product.

SECTION 12: ECOLOGICAL INFORMATION

Ecological Information

- Environmental effects** Toxic to aquatic organisms, water polluting material. May be harmful to the environment if released in large quantities.
- Aquatic ecotoxicity** No data on specific product

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method

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. (Diethylenetriamine solution)
Hazard Class 3, (8)
ID Number UN2733
Packing Group III
Emergency phone +1-352-323-3500 (US Toll Free: 800-535-5053)



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



TRANSPORT CANADA

Proper Shipping Name Amines, flammable, corrosive, n.o.s. (Diethylenetriamine solution)
Hazard Class 3, (8)
ID Number UN2733
Packing Group III
Emergency phone +1-352-323-3500 (US Toll Free: 800-535-5053)

IMO/IMDG

Proper Shipping Name Amines, flammable, corrosive, n.o.s. (Diethylenetriamine solution)
Hazard Class 3, (8)
ID Number UN2733
Packing Group III
Emergency phone +1-352-323-3500 (US Toll Free: 800-535-5053)
Stowage Location A
EmS Fire / EmS Spill F-A / S-B

IATA/DGR

Proper Shipping Name Amines, flammable, corrosive, n.o.s. (Diethylenetriamine solution)
Hazard Class 3, (8)
ID Number UN2733
Packing Group III
EMERGENCY PHONE +1-352-323-3500 (US Toll Free: 800-535-5053)
Passenger and Cargo Aircraft Component-A Quantity limitation: 0.264 US-Gal (1 L) Packaging instruction: 851
Component-B Quantity limitation: 15.850 US Gal (60 L) Packaging instruction: 309
Cargo Aircraft Only Component-A Quantity limitation: 7.925 US-Gal (30 L) Packaging instruction: 855
Component-B Quantity limitation: 85.117 US Gal (220 L) Packaging instruction: 310

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Nombre propio del transporte Aminas, inflamables, corrosivos, n.e.p. (Dietilentriamina solución)
Clase de peligro 3, (8)
Número ID UN2733
Grupo de embalaje III
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)****Sections: 302/304 Extremely Hazardous Substances (EHS):**

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

311/312 Hazard Categories

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-Hydroxybutane	71-36-3	A, D, F
Phenol, 4,4'-(-1methylethylidene)bis-	80-05-7	A, F
2-Methyl-4-pentanone	108-10-1	A, D, F
1-Methylbenzene	108-88-3	A, D, F

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

<u>Ingredient(s)</u>	<u>CAS No.</u>
1-Hydroxybutane	71-36-3
Phenol, 4,4'-(-1methylethylidene)bis-	80-05-7
2-Methyl-4-pentanone	108-10-1
1-Methylbenzene	108-88-3

State Regulations**USA, CALIFORNIA STATE SAFE DRINKING & TOXIC ENFORCEMENT ACT (PROPOSITION 65):** This product does not contain any chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.**USA, Massachusetts Right-to-Know Components:**

<u>Ingredient(s)</u>	<u>CAS No.</u>
1-Hydroxybutane	71-36-3
Phenol, 4,4'-(-1methylethylidene)bis-	80-05-7
2-Methyl-4-pentanone	108-10-1
1-Methylbenzene	108-88-3

USA, Michigan Right-to-Know Components:

<u>Ingredient(s)</u>	<u>CAS No.</u>
1-Hydroxybutane	71-36-3
Phenol, 4,4'-(-1methylethylidene)bis-	80-05-7
2-Methyl-4-pentanone	108-10-1
1-Methylbenzene	108-88-3

USA, New Jersey Right-to-Know:

<u>Ingredient(s)</u>	<u>CAS No.</u>
1-Hydroxybutane	71-36-3
Phenol, 4,4'-(-1methylethylidene)bis-	80-05-7
2-Methyl-4-pentanone	108-10-1
1-Methylbenzene	108-88-3

USA, PENNSYLVANIA RIGHT-TO-KNOW:

<u>Ingredient(s)</u>	<u>CAS No.</u>
1-Hydroxybutane	71-36-3
Phenol, 4,4'-(-1methylethylidene)bis-	80-05-7
2-Methyl-4-pentanone	108-10-1
1-Methylbenzene	108-88-3

PRODUCT SPECIFIC HEALTH AND SAFETY DATA IN OTHER SECTIONS OF THIS MSDS 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: 5-06252024 Product Code: C232-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 SDS 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.

