CORCHEM®

(M)SDS
SAFETY DATA SHEET

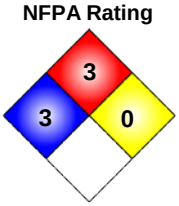
SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

GHS Product Code:	C275-A-0C0
Product Name:	CORCHEM® 275 FOOD CONTACT COATING 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:	5-10242015

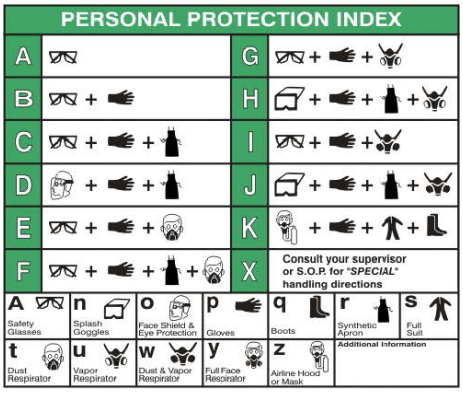
SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

Category 1	Skin sensitization Serious eye damage
Category 1B	Skin corrosion
Category 2	Skin irritation Acute toxicity – Inhalation Reproductive toxicity Germ cell mutagenicity Specific target organ toxicity, repeated exposure STOT-RE: Oral
Category 3	Specific target organ toxicity, single exposure STOT-SE: Respiratory System
Category 4	Acute toxicity – Oral Acute toxicity – Dermal



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



2012 ERG GUIDEBOOK # 154

GHS Label elements, including precautionary statements

Hazard Pictograms

Signal word: **Danger**

GHS Hazard statement(s)

H302 + H312:	Harmful if swallowed or in contact with skin.
H314:	Causes severe skin burns and eye damage.
H317:	May cause an allergic skin reaction.
H318:	Causes serious eye damage.
H330:	Fatal if inhaled.
H335:	May cause respiratory irritation.

H361:	Suspected of damaging fertility or the unborn child.
H373a:	May cause damage to organs through prolonged or repeated exposure if swallowed.
H373b:	May cause damage to organs through prolonged or repeated exposure if inhaled.

GHS Precautionary statement(s)

P102:	Keep out of reach of children.
P202:	Do not handle until all safety precautions have been read and understood.
P234:	Keep only in original container.
P260:	Do not breathe dust/fume/gas/mist/vapors/spray.
P262:	Do not get in eyes, on skin, or on clothing.
P264:	Wash thoroughly after handling.
P270:	Do not eat, drink or smoke when using this product.
P271:	Use only outdoors or in a well-ventilated area.
P272:	Contaminated work clothing should not be allowed out of the workplace.
P273:	Avoid release to the environment.
P280:	Wear protective gloves/protective clothing/eye protection/face protection.
P281:	Use personal protective equipment as required.
P284:	Wear respiratory protection.
P301 + P310 + P330:	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.
P302 + P352 + P312:	IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell.
P304 + P340 + P310:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
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 + P314:	If exposed or concerned: Get medical advice / attention if you feel unwell.
P337 + P313:	If eye irritation persists: Get medical advice / attention.
P391:	Collect spillage.
P401:	Store protected at temperatures between 40°F (4°C) and 100°F (38°C).
P403:	Store in a well ventilated place.
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

Ingredient(s)	CAS No.	% (by Weight)
Hexone	108-10-1	<25
Diethylenetriamine	111-40-0	>25
Mixed Xylenes	1330-20-7	<20
CBI Additives [NOT REGULATED BY GHS, DOT, IMDG, OR IATA]	MIXTURE	>30

SECTION 4: FIRST AID MEASURES

Ingestion

If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. **Seek immediate medical attention**, contact a poison control center or doctor/physician 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 immediate 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

Suitable extinguishing media

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

Unsuitable extinguishing media

High volume water jet.

Specific hazards and by-products from combustion

May generate ammonia gas. May generate toxic nitrogen oxide gases. Incomplete combustion may form carbon monoxide. 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. Do not allow runoff from firefighting to enter drains or waterways. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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.

CONTAMINATED FIRE EXTINGUISHING MEDIA MUST NOT BE DISCHARGED INTO WATERWAYS, SEWERS, DRAINS, OR THE ENVIRONMENT. FIRE RESIDUES AND CONTAMINATED FIRE EXTINGUISHING MEDIA MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS.

Flash point

Estimated: <140°F (<60°C)

Explosive limit

Not established

Autoignition temperature

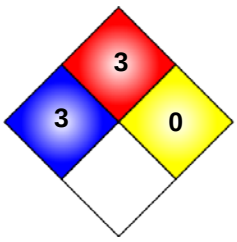
Not Established

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:	**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. 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 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.

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, 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)

Note: The table includes Occupational Exposure Limits (**OEL**s) for substances listed in the OSHA Z-1 – Z-3 tables as well as OEL's listed by NIOSH and ACGIH. These organizations periodically make revisions to their OELs and so they should be consulted directly for their most current values and substances, as well as special notations such as for skin absorption. The TLVs® and BEIs® are copyrighted by ACGIH® and are not publicly available. However, they can be purchased in their entirety from the ACGIH®. Permission must be requested from ACGIH® to reproduce the TLVs® and BEIs®, CORCHEM® is a registered member of ACGIH®.

Authorities:

ACGIH The American Conference of Governmental Industrial Hygienists

NIOSH United States Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health

OSHA United States Department of Labor, Occupational safety and Health Administration

BEI® Biological Exposure Indices: the BEI® is a guideline for the control of potential health hazards to the worker by knowledgeable occupational health professionals and should not be used for any other purpose.

IDLH Immediately Dangerous to Life and Health: is defined by (NIOSH) as exposure to airborne contaminants that is "likely to cause death or immediate or delayed permanent adverse health effects or prevent escape from such an environment."

The OSHA regulation (1910.134(b)) defines the term as "an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere."

IDLH values are often used to guide the selection of breathing apparatus that are made available to workers or firefighters in specific situations.

mg/m^3 Approximate milligrams of substance per cubic meter of air.

PEL Permissible Exposure Limit: usually given as a time-weighted average (TWA). A TWA is the average exposure over a specified period of time, usually a nominal eight hours.

ppm Parts of vapor or gas per million parts of contaminated air by volume at 25 degrees C and 760 torr.

REL Recommended Exposure Limit: is an occupational exposure limit that has been recommended by NIOSH to OSHA for adoption as a permissible exposure limit. The REL is a level that NIOSH believes would be protective of worker safety and health over a working lifetime if used in combination with engineering and work practice controls, exposure and medical monitoring, posting and labeling of hazards, worker training and personal protective equipment. Although not legally enforceable limits, NIOSH RELs are considered by OSHA during the promulgation of legally enforceable PELs.

TLV® Threshold Limit Value: TLVs® refer to airborne concentrations of chemical substances and represent conditions under which it is believed that *nearly all* workers may be repeatedly exposed, day-after-day, over a working lifetime, without adverse health effects.

TLV-C Threshold Limit Value-Ceiling: The concentration that should not be exceeded during any part of the working exposure.

TLV-STEL Threshold Limit Value-Short Term Exposure Limit: a 15 minute TWA exposure that should not be exceeded at any time during a work day, even if the 8-hour TWA is within the TLV-TWA.

TLV-TWA Threshold Limit Value-Time Weighted Average: the Time Weighted Average concentration for a conventional 8-hour workday and a 40-hour workweek to which it is believed that nearly all workers may be repeatedly exposed, day-after-day for a working lifetime without adverse effects.

TWA Time Weighted Average: is the employee's average airborne exposure in any 8-hour work shift of a 40-hour work week which shall not be exceeded.

Component(s)	Exposure Level	Authority	Adopted Value(s)	Note
Hexone	IDLH	NIOSH	500 ppm 2,048 mg/m^3	
Hexone	PEL	OSHA	100 ppm 410 mg/m^3	
Hexone	REL-STEL	NIOSH	75 ppm 307 mg/m^3	
Hexone	TLV-TWA	ACGIH	20 ppm 82 mg/m^3	
Diethylenetriamine	IDLH	NIOSH	– –	IDLH Not Determined
Diethylenetriamine	PEL	OSHA	– –	OEL Not Established
Diethylenetriamine	TLV-TWA	ACGIH	1 ppm 4 mg/m^3	
Diethylenetriamine	REL-TWA	NIOSH	1 ppm 4 mg/m^3	
Mixed Xylenes	IDLH	NIOSH	900 ppm 3,908 mg/m^3	
Mixed Xylenes	REL-STEL	NIOSH	150 ppm 651 mg/m^3	
Mixed Xylenes	PEL	OSHA	100 ppm 435 mg/m^3	
Mixed Xylenes	TLV-TWA	ACGIH	100 ppm 435 mg/m^3	

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. Drench affected area with water for at least 15 minutes. Wash hands at the end of each work shift and before eating, drinking, using tobacco products, or restroom.

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).

Provide readily accessible eye wash stations and safety showers.

Other Protective Clothing or Equipment

Use protective barrier creams on exposed skin areas. Discard contaminated leather articles. Remove contaminated clothing; do not allow contaminated clothing out of the workplace.

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:	Irritating, Ammoniacal
Odor Threshold:	Not available
pH:	Alkaline
Melting Point / Freezing Point:	Not available
Initial Boiling Point and Range:	>374° F (>190° C)
Flash Point:	Estimated: <140°F (<60°C)
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:	67.422 lb/ft^3 (1.08 g/cm^3) at 70° F (21° C)
Relative Density (water=1):	1.09
Solubility:	Soluble
Partition coefficient: *n*- octanol/water:	Not available.
Auto-ignition temperature:	Not available.
Decomposition Temperature:	Not available.
Volatile Organic Compounds (VOC):	3.13 lbs/gal (375.06 g/l)
Percent solids by weight:	61.35
Percent solids by volume:	54.80
Specific Gravity:	0.972 @ 70º F (21º C)
Weight per gallon:	8.11

SECTION 10: STABILITY AND REACTIVITY

Hazardous Polymerization:
None under normal conditions.

Hazardous Decomposition or By-Products
Nitric acid, Ammonia, Nitrogen oxides (NOx), Nitrogen oxide can react with water vapors to form corrosive nitric acid, Carbon monoxide, Carbon dioxide (CO2), Aldehydes, Flammable hydrocarbon fragments, Nitrosamine, Organic acid vapors.

Chemical Stability
Stable under normal conditions.

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.

CAUTION! N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological Information

Likely routes of exposure and potential health effects

Inhalation: Toxic by inhalation. This product contains a component that is toxic by inhalation when aerosolized or sprayed. Inhalation of vapors and/or aerosols in high concentration may cause irritation of the respiratory tract. May cause nose, throat, and lung irritation. Can cause severe eye, skin, and respiratory tract burns.

Ingestion: Toxic if swallowed, If ingested, severe burns of the mouth, throat, as well as a danger of perforation of the esophagus and the stomach. May cause central nervous system effects, such as, headache, nausea, vomiting, abdominal pain, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure.

Skin: Severely irritating to the skin. Causes skin burns. If absorbed through the skin, may cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Symptoms of overexposure may include headache, tiredness, nausea, and vomiting.

Eyes: Causes eye burns, may cause blindness, or severe eye irritation.

Acute Toxicity Data

Product/ingredient name	Method	Species	Dose	Exposure	Result
Hexone	OECD 401 Oral	Rat	2,080 mg/kg	4 h	LD_{50}
Hexone	OECD 402 Dermal	Rabbit	>2,000 mg/kg	4 h	LD_{50}
Hexone	OECD 403 Inhalation	Rat	>16,000 mg/m^3	4 h	LC_{50}

Hexone	OECD 404 Dermal	Rabbit	–	4 h	No skin irritation
Hexone	OECD 405 Ocular	Rabbit	–	4 h	Irritating to eyes.
Diethylenetriamine	OECD 401 Oral	Rat	>1,400 mg/kg	4 h	LD_{50}
Diethylenetriamine	OECD 402 Dermal	Rabbit	>1,000 mg/kg	4 h	LD_{50}
Diethylenetriamine	OECD 403 Inhalation	Rat	>0.03 mg/m^3	8 h	LC_{50}
Mixed Xylenes	OECD 401 Oral	Rat	>5,000 mg/kg	4 h	LD_{50}
Mixed Xylenes	OECD 402 Dermal	Rabbit	>4,000 mg/kg	4 h	LD_{50}
Mixed Xylenes	OECD 403 Inhalation	Rat	>28,000 mg/m^3	4 h	LC_{50}
Mixed Xylenes	OECD 404 Dermal	Rabbit	–	4 h	No skin irritation
Mixed Xylenes	OECD 405 Eyes	Rabbit	–	4 h	Irritating to eyes.

OCED: Organization for Economic Cooperation and Development.
OECD Test Method 401: Acute Oral Toxicity. (Following the OECD Council decision, the test 401 'Acute Oral Toxicity' was deleted on 12/07/2002.)
OECD Test Method 420: Acute Oral toxicity – fixed dose procedure.
OECD Test Method 402: Acute Dermal Toxicity.
OECD Test Method 403: Acute Inhalation Toxicity.
OECD Test Method 404: Acute Dermal Irritation/Corrosion.
OECD Test Method 405: Acute Eye Irritation/Corrosion.

Germ cell mutagenicity

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

Component	Test	Result
Hexone	OECD 471 (in vitro)	Negative
Hexone	OECD 474 (in in vivo)	Negative
Diethylenetriamine	OECD 471 (in vitro)	Negative
Diethylenetriamine	OECD 474 (in in vivo)	Negative
Mixed Xylenes	OECD 471 (in vitro)	Negative
Mixed Xylenes	OECD 474 (in in vivo)	Negative

OECD: Organization for Economic Cooperation and Development.
LOEL: "Lowest-observed-effect-level".
NOAEL: "No-observed-adverse-effect level".

Carcinogenicity

Component	Classification	Listing Body
Hexone	Group 2B – Possibly carcinogenic to humans.	**IARC**
Hexone	Some evidence of carcinogenic activity.	**NTP**
Diethylenetriamine	Not Listed	**IARC**
Diethylenetriamine	Equivocal evidence of carcinogenic activity.	**NTP**
Mixed Xylenes	Group 3 – Not classifiable as to its carcinogenicity to humans.	**IARC**
Mixed Xylenes	No evidence of carcinogenic activity.	**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.

Component	Test	Result
Hexone	OECD 414	1,000 mg/kg NOAEL
Hexone	OECD 416	1,000 mg/kg NOAEL
Diethylenetriamine	OECD 414	100 mg/kg NOAEL
Diethylenetriamine	OECD 421	30 mg/kg NOAEL
Mixed Xylenes	OECD 414	500 mg/kg NOAEL
Mixed Xylenes	OECD 416	200 mg/kg LOEL

OECD: Organization for Economic Cooperation and Development.
LOEL: "Lowest-observed-effect-level".
NOAEL: "No-observed-adverse-effect level".

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

Respiratory Tract: This product contains a component that is toxic by inhalation when aerosolized or sprayed. Review the toxicity information in this section 11 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 of 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. Highly toxic by inhalation.

Central Nervous System: May cause drowsiness or dizziness with narcotic effect.

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

Liver, Kidney, Central Nervous System: May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Not classified as an aspiration hazard.

Potential chronic health effects

Skin corrosion / irritation

Severely irritating in contact with skin. May cause sensitization by skin contact

Serious eye damage / irritation

May cause irreversible eye damage.

Respiratory or skin sensitization

Once sensitized, a severe allergic skin reaction may occur when subsequently exposed to very low levels.

Chronic inhalation of a component or components of this product produced tumors in the nose and kidneys of laboratory animals. A component or components of this product was mutagenic in a cultured mammalian cell assay. In vitro tests have shown mutagenic effects on bacterial cultures. A component has been shown to cause reproductive/teratogenic effects in laboratory animals. Mixed polycycloaliphatic amines were tested in rats for systemic effects in a sub chronic (28-day) oral study at doses ranging from 15 to 300 mg/kg/day. Effects seen at 300 mg/kg/day included decreased survival, decreased body weight gain, increased liver, kidney, and adrenal weights and histological changes in the liver, kidney, adrenals and spleen. The No-Observed-Adverse-Effect-Level (NOAEL) was 15 mg/kg/day.

Component	Test	Endpoint	Species	Result
Hexone	OECD 403 (inhalation)	NOAEL	Rat	450 mg/m^3
Hexone	OECD 404 (dermal)	NOAEL	Rabbit	120 mg/kg
Hexone	OECD 408 (oral)	NOAEL	Rat	250 mg/kg
Diethylenetriamine	OECD 403 (inhalation)	NOAEL	Rat	550 mg/m^3
Diethylenetriamine	OECD 404 (dermal)	LOEL	Mouse	400 mg/L
Diethylenetriamine	OECD 408 (oral)	NOAEL	Rat	240 mg/kg
Mixed Xylenes	OECD 403 (inhalation)	NOAEL	Rat	No data available
Mixed Xylenes	OECD 404 (dermal)	NOAEL	Rabbit	No data available
Mixed Xylenes	OECD 408 (oral)	NOAEL	Rat	150 mg/kg

OECD: Organization for Economic Cooperation and Development.
LOEL: "Lowest-observed-effect-level".
NOAEL: "No-observed-adverse-effect level".

SECTION 12: ECOLOGICAL INFORMATION

Environmental affects

No data on the product itself. May be harmful to the environment if released in large quantities. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Ecotoxicity

Aquatic Toxicity

Toxicity to Fish

Product/ingredient name	Test	Species	Dose	Exposure
Hexone	LC_{50}	Danio rerio (zebra fish)	179 mg/l	96 h
Diethylenetriamine	LC_{50}	Poecillia reticulate (guppy)	>1,000 mg/l	96 h
Mixed Xylenes	LC_{50}	Oncorhynchus mykiss (rainbow trout)	2.6 mg/l	96 h

Toxicity to aquatic invertebrates

Product/ingredient name	Test	Species	Dose	Exposure
Hexone	EC_{50}	Daphnia magna (water flea)	>200 mg/l	48 h
Diethylenetriamine	EC_{50}	Daphnia magna (water flea)	17 mg/l	48 h
Mixed Xylenes	EC_{50}	Daphnia magna (water flea)	1 mg/l	48 h

Toxicity to aquatic algae and cyanobacteria

Product/ingredient name	Test	Species	Dose	Exposure
Hexone	EC_{50}	Pseudokirchneriella subcapitata (green algae)	400 mg/l	96 h
Diethylenetriamine	EC_{50}	Scenedesmus subspicatus (green algae)	17 mg/l	72 h
Mixed Xylenes	EC_{50}	Pseudokirchneriella subcapitata (green algae)	4.36 mg/l	72 h

Persistence and degradability

Product/ingredient name	Test	Concentration	Result
Hexone	OECD 301F	83%	Readily biodegradable
Diethylenetriamine	Anaerobic, 28 d	70%	Readily biodegradable
Mixed Xylenes	Aerobic, 28 d	72%	Readily biodegradable

Bioaccumulative potential

Product/ingredient name	Log K_{ow}	BCF	Potential
Hexone	1.31	3.98	Low
Diethylenetriamine	-1.32	2.8	Moderate
Mixed Xylenes	3.2	58	Low

Mobility in soil

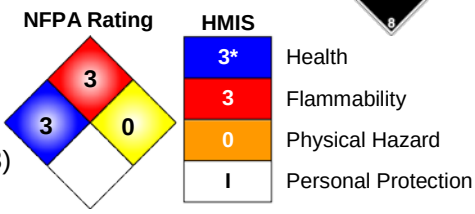
Product/ingredient name	
Hexone	Slight mobility
Diethylenetriamine	High mobility
Mixed Xylenes	Slight mobility.

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)

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	Category 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:	1.3 US-Gal (1 L)
	Packaging instruction:	851
	Special Provision:	None
	ERG Code:	8L
Cargo Aircraft Only (CAO)	Quantity limitation:	15.9 US-Gal (30 L)
	Packaging instruction:	855
	Special Provision:	None
	ERG Code:	8L

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.	Reportable Quantity
Hexone	108-10-1	5,000 Lbs.
Mixed Xylenes	1330-20-7	100 Lbs.

311/312 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

Ingredient(s)	CAS No.	Category
Hexone	108-10-1	A, D, F
Diethylenetriamine	111-40-0	A, D
Mixed Xylenes	1330-20-7	A, D, F

Note:** ***The information above is provided for informational purposes only. None of the individual chemicals in the listing above appear in 40 CFR Part 355, Appendix A or Appendix B.

Section: 313 Toxics Release Inventory (TRI) Reportable Ingredients:
Extremely Hazardous Substances (EHSs), (40 CFR Part 372, Subpart D)

Ingredient(s)	CAS No.
Hexone	108-10-1
Mixed Xylenes	1330-20-7

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): 375.06 g/l, (3.13 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

Ingredient(s)	CAS No.
–	–

State Regulations

USA, CALIFORNIA STATE SAFE DRINKING & TOXIC ENFORCEMENT ACT (PROPOSITION 65): This product contains the following chemical(s) known to the State of California to cause cancer and/or birth defects or other reproductive harm.

Ingredient(s)	CAS No.
Hexone	108-10-1

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

Ingredient(s)	CAS No.
–	–

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

Ingredient(s)	CAS No.
–	–

USA, Michigan Critical Materials Register (CMR) Components:

Ingredient(s)	CAS No.
Mixed Xylenes	1330-20-7

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

Ingredient(s)	CAS No.
Hexone	108-10-1
Diethylenetriamine	111-40-0
Mixed Xylenes	1330-20-7

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

Ingredient(s)	CAS No.
Hexone	108-10-1
Diethylenetriamine	111-40-0
Mixed Xylenes	1330-20-7

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 Safety Data Sheet (SDS) has been prepared by CORCHEM® Corporation.

Revision: 5-10242015, Product Code: C275-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 Safety Data Sheet (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.

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