

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

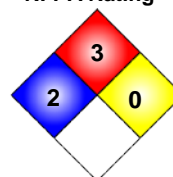
GHS Product Code: C253-B-801
 Product Name: CORCHEM® 253 CO₂ LINING
 COMPONENT B, COLOR: GREEN
 Recommended Use: INDUSTRIAL PROTECTIVE COATING/LINING
 Restrictions on Use: INTENDED FOR PROFESSIONAL USE ONLY
 Manufacturer: CORCHEM MANUFACTURING, INC.
 Address: 1227 SOUTH MURPHY STREET
 ODESSA TEXAS, USA 79766-8811
 Emergency phone: INFOTRAC: +1-352-323-3500 (TOLL-FREE IN THE US: 800-535-5053)
 Contract No.: 74435
 Revision: 2-04212020

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

- Category 1 Skin sensitization
- Category 2 Skin irritation
Acute aquatic toxicity
Chronic aquatic toxicity
- Category 2A Serious eye damage
Eye irritation
- Category 3 Flammable liquids

NFPA Rating



HMIS

2	Health
3	Flammability
0	Physical Hazard
1	Personal Protection



GHS Label elements, including precautionary statements



Signal word: **Warning**

GHS Hazard statement(s)

- H226: Flammable liquid and vapor.
- H305: May be harmful if swallowed and enters airways.
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation.
- H411: Toxic to aquatic life with long lasting effects.

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.
- P233: Keep container tightly closed.
- P234: Keep only in original container.
- P264: Wash skin thoroughly after handling.

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

2012 ERG GUIDEBOOK # 127

- 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 equipment as required.
- P301 + P310 + P330: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.
- 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.
- 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 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient(s)</u>	<u>CAS No.</u>	<u>% (by Weight)</u>
2-Heptanone	110-43-0	<25
Bisphenol A - epoxy resins, number average MW >700 - <1100	25038-38-6	<25
Phenol, polymer with formaldehyde, glycidyl ether	28064-14-4	>25
Confidential Business Information (CBI) [NOT REGULATED BY DOT OR GHS]	MIXTURE	>25

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, irrigate 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.

THIS MATERIAL IS TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS, 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

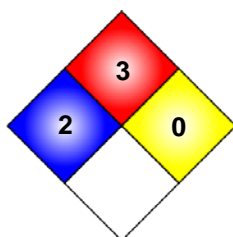
Not Established

Fire and Explosion Hazards

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

NFPA Rating

Health:	2
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).

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 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 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. Protect from extremes in temperature and direct sunlight. 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, 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.

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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit(s)

Note: The table includes Occupational Exposure Limits (OELs) 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/m³ 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.

<u>Component(s)</u>	<u>Exposure Level</u>	<u>Authority</u>	<u>Adopted Value(s)</u>		<u>Note</u>
2-Heptanone	IDLH	NIOSH	800 ppm	3,736 mg/m ³	
2-Heptanone	PEL	OSHA	100 ppm	467 mg/m ³	
2-Heptanone	REL-TWA	NIOSH	100 ppm	467 mg/m ³	
2-Heptanone	TLV-TWA	ACGIH	50 ppm	234 mg/m ³	Skin & eye irritation
Bisphenol A - epoxy resins, number average MW >700 - <1100	IDLH	NIOSH	–	–	IDLH Not Determined
Bisphenol A - epoxy resins, number average MW >700 - <1100	PEL	OSHA	–	–	OEL Not Established
Bisphenol A - epoxy resins, number average MW >700 - <1100	TLV-TWA	ACGIH	–	–	OEL Not Established
Bisphenol A - epoxy resins, number average MW >700 - <1100	REL-CEIL	NIOSH	–	–	OEL Not Established
Phenol, polymer with formaldehyde, glycidyl ether	IDLH	NIOSH	–	–	IDLH Not Determined
Phenol, polymer with formaldehyde, glycidyl ether	PEL	OSHA	–	–	OEL Not Established
Phenol, polymer with formaldehyde, glycidyl ether	TLV-TWA	ACGIH	–	–	OEL Not Established
Phenol, polymer with formaldehyde, glycidyl ether	REL-STEL	NIOSH	–	–	OEL Not Established

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. 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. 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 and/or replacement 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 green liquid
Odor:	Slight, aromatic
Odor Threshold:	Not available.
Ph:	Not available.
Melting Point / Freezing Point:	Not available.
Initial Boiling Point and Range:	>194°F (>90°C) – OECD 103
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:	Not available.
Vapor Density (air = 1):	Not available.
Relative Density:	1.21 g/cm ³
Solubility:	Slightly soluble
Partition coefficient: <i>n</i>- octanol/water:	Not available.
Auto-ignition temperature:	Not available.
Decomposition Temperature:	Not available.
Volatile Organic Compounds (VOC):	1.92 lb/gal (230.07 g/l)
Percent solids by weight:	84.38
Percent solids by volume:	71.25
Specific Gravity:	1.476

SECTION 10: STABILITY AND REACTIVITY

Reactivity

No specific test data related to reactivity available for this product or its ingredients.

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.

Incompatible materials

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 Decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological information**Likely routes of exposure and potential health effects**

Ingestion: If ingested, irritating to mouth, throat, and stomach.

Skin: In contact with skin, causes skin irritation. May cause allergic skin reaction. Adverse symptoms may include irritation and/or redness. May cause sensitization by skin contact. Pre-existing skin disorders may be aggravated by over-exposure to this product. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Eyes: In contact with eyes, causes serious eye irritation. Adverse symptoms may include pain, irritation, watering, and/or redness.

Inhalation: If inhaled, may cause respiratory irritation. Adverse symptoms may include respiratory tract irritation and/or coughing.

Acute toxicity data

Product/ingredient name	Method	Species	Dose	Exposure	Result
2-Heptanone	OECD 420 Oral	Rat	1,670 mg/kg	–	LD ₅₀
2-Heptanone	OECD 402 Dermal	Rabbit	2,000 mg/kg	–	LD ₅₀
2-Heptanone	OECD 403 Inhalation	Rat	16.7 mg/l	–	LC ₅₀
2-Heptanone	OECD 404 Dermal	Rabbit	–	4 h	Mild irritant
2-Heptanone	OECD 405 Eyes	Rat	–	4 h	Mild irritant
Bisphenol A - epoxy resins, number average MW >700 - <1100	OECD 420 Oral	Rat	>2,000 mg/kg	–	LD ₅₀
Bisphenol A - epoxy resins, number average MW >700 - <1100	OECD 402 Dermal	Rabbit	>2,000 mg/kg	–	LD ₅₀
Bisphenol A - epoxy resins, number average MW >700 - <1100	OECD 403 Inhalation	Rat	29 mg/l	–	LC ₅₀
Bisphenol A - epoxy resins, number average MW >700 - <1100	OECD 404 Dermal	Rabbit	–	4 h	Mild irritant
Bisphenol A - epoxy resins, number average MW >700 - <1100	OECD 405 Eyes	Rat	–	4 h	Mild irritant
Phenol, polymer with formaldehyde, glycidyl ether	OECD 420 Oral	Rat	>5,000 mg/kg		LD ₅₀
Phenol, polymer with formaldehyde, glycidyl ether	OECD 402 Dermal	Rabbit	>2,000 mg/kg		LD ₅₀

Phenol, polymer with formaldehyde, glycidyl ether	OECD 403 Inhalation	Rat	No data		LC ₅₀
Phenol, polymer with formaldehyde, glycidyl ether	OECD 404 Dermal	Rabbit	–	4 h	Non-irritant
Phenol, polymer with formaldehyde, glycidyl ether	OECD 405 Eyes	Rat	–	4 h	Mild irritant

- 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
2-Heptanone	OECD 473 (<i>in vitro</i>)	Negative
2-Heptanone	OECD 474 (<i>in vivo</i>)	Negative
Bisphenol A - epoxy resins, number average MW >700 - <1100	OECD 473 (<i>in vitro</i>)	Negative
Bisphenol A - epoxy resins, number average MW >700 - <1100	OECD 474 (<i>in vivo</i>)	Negative
Phenol, polymer with formaldehyde, glycidyl ether	OECD 473 (<i>in vitro</i>)	Positive
Phenol, polymer with formaldehyde, glycidyl ether	OECD 474 (<i>in vivo</i>)	Negative

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

Carcinogenicity

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

Component	Classification	Listing Body
2-Heptanone	Not Listed	IARC
2-Heptanone	Not Listed	NTP
Bisphenol A - epoxy resins, number average MW >700 - <1100	Not Listed	IARC
Bisphenol A - epoxy resins, number average MW >700 - <1100	Not Listed	NTP
Phenol, polymer with formaldehyde, glycidyl ether	No data	IARC
Phenol, polymer with formaldehyde, glycidyl ether	No data	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
2-Heptanone	OECD 414	Negative
2-Heptanone	OECD 416	Negative
Bisphenol A - epoxy resins, number average MW >700 - <1100	OECD 414	Negative
Bisphenol A - epoxy resins, number average MW >700 - <1100	OECD 416	Negative
Phenol, polymer with formaldehyde, glycidyl ether	OECD 414	Negative
Phenol, polymer with formaldehyde, glycidyl ether	OECD 416	Negative

OCED: Organization for Economic Cooperation and Development.

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

This material is not classifiable as to STOT-SE, 2-Heptanone is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects. May cause drowsiness or dizziness.

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

No data available.

Aspiration hazard

No data available.

Potential chronic health effects**Skin corrosion / irritation**

No additional data.

Serious eye damage / irritation

No additional data. May cause eye irritation.

Respiratory or skin sensitization

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

No additional data on the product itself.

Component	Test	Endpoint	Species	Result
2-Heptanone	OECD 408 (oral)	NOAEL	Rat	20 mg/kg
2-Heptanone	OECD 411 (dermal)	NOAEL	Rat	5 mg/kg
Bisphenol A - epoxy resins, number average MW >700 - <1100	OECD 408 (oral)	NOAEL	Rat	50 mg/kg
Bisphenol A - epoxy resins, number average MW >700 - <1100	OECD 411 (dermal)	NOAEL	Rat	10 mg/kg
Phenol, polymer with formaldehyde, glycidyl ether	OECD 408 (oral)	NOAEL	Rat	250 mg/kg
Phenol, polymer with formaldehyde, glycidyl ether	OECD 411 (dermal)	NOAEL	Rat	No data

OECD: Organization for Economic Cooperation and Development.

NOAEL: "No-observed-adverse-effect level".

SECTION 12: ECOLOGICAL INFORMATION

Environmental effects

Highly toxic to aquatic life with long lasting effects. 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
2-Heptanone	LC ₅₀	Pimephales promelas (fathead minnow)	131 mg/l	96 h
Bisphenol A - epoxy resins, number average MW >700 - <1100	LC ₅₀	Leuciscus idus (golden orfe)	1.5 mg/l	96 h
Phenol, polymer with formaldehyde, glycidylether	LC ₅₀	Leuciscus idus (golden orfe)	0.55 mg/l	96 h

Toxicity to aquatic invertebrates

Product/ingredient name	Test	Species	Dose	Exposure
2-Heptanone	EC ₅₀	Daphnia magna (water flea)	100 mg/l	48 h
Bisphenol A - epoxy resins, number average MW >700 - <1100	EC ₅₀	Daphnia magna (water flea)	1.7 mg/l	48 h
Phenol, polymer with formaldehyde, glycidylether	EC ₅₀	Daphnia magna (water flea)	1.6 mg/l	48 h

Toxicity to aquatic algae and cyanobacteria

Product/ingredient name	Test	Species	Dose	Exposure
2-Heptanone		Selenastrum capricornutum (green algae)	98.2 mg/l	72 h
Bisphenol A - epoxy resins, number average MW >700 - <1100		Scenedesmus subspicatus (green algae)	9.4 mg/l	72 h
Phenol, polymer with formaldehyde, glycidylether	EC ₅₀	Scenedesmus subspicatus (green algae)	1.8 mg/l	72 h

Persistence and degradability

Product/ingredient name	Test	Concentration	Result
2-Heptanone	Aerobic 28-days	69%	Readily biodegradable
Bisphenol A - epoxy resins, number average MW >700 - <1100	Aerobic 28-days	5%	Not readily biodegradable
Phenol, polymer with formaldehyde, glycidylether	Anaerobic 28 – days	0%	Not readily biodegradable

Bioaccumulative potential

Product/ingredient name	Log K _{ow}	BCF	Potential
2-Heptanone	1.98	7	Low
Bisphenol A - epoxy resins, number average MW >700 - <1100	3.8	31	Low
Phenol, polymer with formaldehyde, glycidylether	3.6	–	Low

Mobility in soil

Product/ingredient name	
2-Heptanone	Moderate mobility
Bisphenol A - epoxy resins, number average MW >700 - <1100	No data available
Phenol, polymer with formaldehyde, glycidylether	Slight mobility

SECTION 13: DISPOSAL CONSIDERATIONS

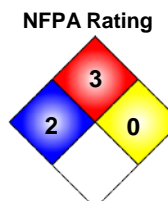
Waste disposal method

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	Coating solution
Hazard class	3
ID number	UN1139
Packing group	III
Emergency phone	+1-352-323-3500 (US Toll Free: 800-535-5053)



HMIS	
2	Health
3	Flammability
0	Physical Hazard
I	Personal Protection



TRANSPORT CANADA

Proper shipping name	Coating solution
Hazard class	3
ID number	UN1139
Packing group	III
Emergency phone	+1-352-323-3500 (US Toll Free: 800-535-5053)

IMO/IMDG

Proper shipping name	Coating solution
Hazard class	3
ID number	UN1139
Packing group	III
Emergency phone	+1-352-323-3500 (US Toll Free: 800-535-5053)
Stowage and Segregation	Category A
EmS Fire / EmS Spill	F-A / S-E

IATA/DGR

Proper shipping name	Coating solution	
Hazard class	3	
ID number	UN1139	
Packing group	III	
Emergency phone	+1-352-323-3500 (US Toll Free: 800-535-5053)	
Passenger and cargo aircraft	Quantity limitation:	15.85 US-Gal (60 L)
	Packaging instruction:	355
	Special Provisions:	None
Cargo Aircraft Only (CAO)	ERG Code:	3L
	Quantity limitation:	58.12 US-Gal (220 L)
	Packaging instruction:	366
	Special Provisions:	None
	ERG Code:	3L

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Nombre propio del transporte	La solución de recubrimiento
clase de riesgo	3
número de identificación	UN1139
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)

42 U.S. Code, 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>	<u>Reportable Quantity (RQ)</u>
—	—	—

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:	No
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>
2-Heptanone	110-43-0	A, F
Bisphenol A - epoxy resins, number average MW >700 - <1100	25038-38-6	A
Phenol, polymer with formaldehyde, glycidylether	28064-14-4	A

***Note: The information above is provided for informational purposes only.**

No individual chemical in the listing above appears 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.

— —

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): 230.07 g/l, (1.92 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 a chemical known to the State of California to cause cancer, birth defects, or any other harm.

Ingredient(s) CAS No.

— —

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.

— —

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

Ingredient(s) CAS No.

— —

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

Ingredient(s) CAS No.

— —

SECTION 16: OTHER INFORMATION

Preparation Information

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

Revision: 2-04212020, Product code: C253-B-801

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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