CORCHEM®

(M)SDS
SAFETY DATA SHEET

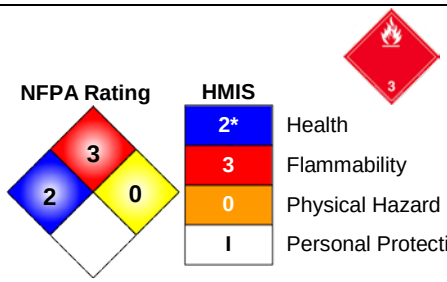
SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

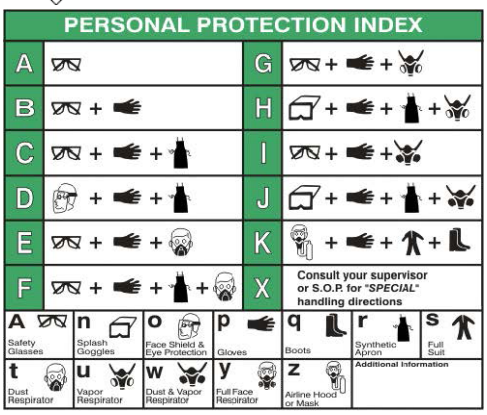
GHS Product Code:	C004-1-0C0
Product Name:	CORCHEM® 4 EPOXY / PHENOLIC THINNER
Recommended use:	INDUSTRIAL GENERAL SOLVENT/THINNER
Restrictions on use:	INTENDED FOR PROFESSIONAL USE ONLY
Manufacturer:	CORCHEM MANUFACTURING, INC.
Address:	1227 SOUTH MURPHY STREET ODESSA TEXAS, USA 79766-8811
Emergency phone:	INFOTRAC +1-352-323-3500 (U.S. Toll Free: 800-535-5053) Contract No.: 74435
Revision:	2-08072019

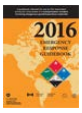
2. HAZARDS IDENTIFICATION

GHS Classification

Category 1	Aspiration hazard Serious eye damage
Category 2	Flammable liquids Skin Irritation Carcinogenetic Specific target organ toxicity, repeated exposure, STOT-RE – Liver, Kidney, Central nervous system Specific target organ toxicity, repeated exposure, STOT-RE - Oral
Category 3	Specific target organ toxicity, single exposure, STOT-SE – Respiratory system, Central nervous system
Category 4	Acute toxicity – Oral Acute toxicity – Inhalation







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GHS Label Elements including precautionary statements

Hazard Pictograms

Signal word: Danger

GHS Hazard statement(s)

H225:	Highly flammable liquid and vapor.
H302 + H332:	Harmful if swallowed or if inhaled.
H304:	May be fatal if swallowed and enters airways.
H315 + H319:	Causes skin irritation and serious eye damage.
H335 + H336:	May cause respiratory irritation, and drowsiness or dizziness.
H351:	Suspected of causing cancer.
H371:	May cause damage to organs.

GHS Precautionary statement(s)

P102:	Keep out of reach of children.
P202:	Do not handle until all safety precautions have been read and understood.
P210:	Keep away from heat/ sparks/ open flames/ hot surfaces. – No Smoking.
P220:	Keep / Store away from clothing / potential ignition sources / combustible materials.
P233:	Keep container tightly closed.
P234:	Keep only in original container.
P240:	Ground/bond container and receiving equipment.
P241:	Use explosion-proof electrical / ventilating / light / other equipment.
P242:	Use only non-sparking tools.
P243:	Take precautionary measures against static discharge.
P260:	Do not breathe dust / fumes / gas / mist / vapors / spray.
P264:	Wash skin thoroughly after handling.
P270:	Do not eat, drink or smoke when using this product.
P271:	Use only outdoors or in a well-ventilated area.
P273:	Avoid release to the environment.
P280:	Wear protective gloves/protective clothing/eye protection/face protection.
P281:	Use personal protective equipment as required.
P301+310:	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+330+331:	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353:	IF ON SKIN (or hair): Remove / take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340 + P312:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
P305 + P351 + P338:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313:	If exposed or concerned; Get medical advice/attention.
P331:	Do NOT induce vomiting.
P332 + P313:	If skin irritation occurs: Get medical advice/attention.
P362:	Take off contaminated clothing and wash before reuse.
P370 + P378:	In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam to extinguish.
P391:	Collect spillage.
P401:	Store protected at temperatures between 40°F (4°C) and 86°F (30°C).
P403:	Store in a well ventilated place.
P405:	Store locked up.
P410:	Protect from sunlight.
P501:	Dispose of contents/container to comply with the requirements of environmental protection and waste disposal legislation and any regional, local authority requirements.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No.	% (by weight)
n-Butyl alcohol	71-36-3	<20
Methyl ethyl ketone	78-93-3	<20
Cumene	98-82-8	<2
Ethylbenzene	100-41-4	>10
Methyl isobutyl ketone	108-10-1	<20
Toluene	108-88-3	<5
Xylenes	1330-20-7	>30

4. FIRST AID MEASURES

Ingestion

Seek medical attention. **KEEP RESPIRATORY TRACT CLEAR. DO NOT INDUCE VOMITING.** 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

SMALL AMOUNTS SPLASHED INTO EYES CAN CAUSE IRREVERSIBLE TISSUE DAMAGE AND BLINDNESS. 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.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

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

Unsuitable extinguishing media

High volume water jet.

Specific hazards and by-products from combustion

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

Special protective equipment and precautions for fire-fighters

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

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

Flash point

28°F (-2°C) (method: closed cup)

Explosive limit

Not established

Autoignition temperature

Not Established

Fire and explosion hazards

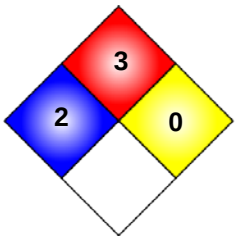
HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor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

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

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

NFPA Rating

Health:	**2**
Flammability:	**3**
Reactivity:	**0**
Special:	



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.

7. HANDLING AND STORAGE

Handling

KEEP AWAY FROM HEAT, SPARKS, FLAME, AND OTHER IGNITION SOURCES. 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.

Containers of this material may be hazardous when emptied since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77. **Warning:** Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "Autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

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.

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

Abbreviations:

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
n-Butyl Alcohol	IDLH	NIOSH	1,400 ppm	4,244 mg/m^3	
n-Butyl Alcohol	PEL	OSHA	100 ppm	300 mg/m^3	
n-Butyl Alcohol	TLV-TWA	ACGIH	20 ppm	885 mg/m^3	
n-Butyl Alcohol	REL-CEIL	NIOSH	50 ppm	150 mg/m^3	10-hour TWA Ceiling
Methyl ethyl ketone	IDLH	NIOSH	3,000 ppm	4,129 mg/m^3	
Methyl ethyl ketone	PEL	OSHA	200 ppm	590 mg/m^3	
Methyl ethyl ketone	TLV-TWA	ACGIH	200 ppm	590 mg/m^3	
Methyl ethyl ketone	REL-STEL	NIOSH	300 ppm	885 mg/m^3	
Cumene	IDLH	NIOSH	900 ppm	4,424 mg/m^3	
Cumene	PEL	OSHA	50 ppm	245 mg/m^3	
Cumene	TLV-TWA	ACGIH	50 ppm	245 mg/m^3	
Cumene	REL-TWA	NIOSH	50 ppm	245 mg/m^3	
Ethylbenzene	IDLH	NIOSH	800 ppm	3,474 mg/m^3	
Ethylbenzene	PEL	OSHA	100 ppm	432 mg/m^3	
Ethylbenzene	TLV-TWA	ACGIH	20 ppm	87 mg/m^3	BEI®, See Section 11
Ethylbenzene	REL-STEL	NIOSH	125 ppm	545 mg/m^3	
Methyl isobutyl ketone	IDLH	NIOSH	500 ppm	2,050 mg/m^3	
Methyl isobutyl ketone	PEL	OSHA	50 ppm	205 mg/m^3	
Methyl isobutyl ketone	TLV-TWA	ACGIH	50 ppm	205 mg/m^3	

Methyl isobutyl ketone	REL	NIOSH	75 ppm	307 mg/m^3	
Toluene	IDLH	NIOSH	500 ppm	1,884 mg/m^3	
Toluene	PEL	OSHA	200ppm	754 mg/m^3	8-hour TWA
Toluene	PEL	OSHA	300ppm	1,130 mg/m^3	Acceptable Ceiling
Toluene	TLV-TWA	ACGIH	20 ppm	75 mg/m^3	BEI®, See Section 11
Toluene	REL-TWA	NIOSH	100ppm	377 mg/m^3	
Toluene	REL-STEL	NIOSH	150 ppm	565 mg/m^3	
Xylenes	IDLH	NIOSH	900 ppm	3,908 mg/m^3	
Xylenes	PEL	OSHA	100 ppm	435 mg/m^3	
Xylenes	TLV-TWA	ACGIH	100 ppm	435 mg/m^3	BEI®, See Section 11
Xylenes	TLV-STEL	ACGIH	150 ppm	651 mg/m^3	BEI®, See Section 11
Xylenes	REL-TWA	NIOSH	100 ppm	435 mg/m^3	
Xylenes	REL-STEL	NIOSH	150 ppm	651 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. Replace defective PPE and/or spoiled garments/boots. Use protective barrier creams on exposed skin areas.

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.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.):	Clear, water like liquid
Odor:	Hydrocarbon-like
Odor Threshold:	No data available
pH:	No data available
Melting Point / Freezing Point:	No data available
Initial Boiling Point and Range:	No data available
Flash Point:	28°F (-2°C) (method: closed cup)
Evaporation Rate:	No data available
Flammability (solid, gas):	Not applicable
Upper/Lower flammability or explosive limits:	No data available
Vapor Pressure:	No data available
Vapor Density:	No data available
Relative Density:	0.8305 g/cm^3 @ 68 °F (20 °C)
Solubility in water:	No data available
Partition coefficient: *n*- octanol/water:	No data available

Auto-ignition temperature:	No data available
Decomposition Temperature:	No data available
Volatile Organic Compounds (VOC):	6.93 lbs./ Gal. (830.39 g/L)
Percent solids by weight:	0.00
Percent solids by volume:	0.00
Specific Gravity:	0.832 @ 68.0º F (20.00º C)
Weight per gallon:	6.93 lbs.

10. STABILITY AND REACTIVITY

Reactivity:
No dangerous reaction known under conditions of normal use.

Chemical Stability:
Stable under normal conditions.

Possibility of hazardous reactions:
Under normal conditions of storage and use, no hazards to be specifically mentioned.

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

Incompatible materials:
Aldehydes, Alkali metals, aluminum, Amines, Bases, Copper, Copper alloys, halogens, Lead, Oxidizing agents, peroxides, Strong acids, strong alkalis, strong reducing agents

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.

11. TOXICOLOGICAL INFORMATION

Toxicological Information

Likely routes of exposure and potential health effects

Inhalation: Harmful if inhaled. If inhaled, may cause respiratory irritation, lung cancer, bladder cancer. Adverse symptoms may include respiratory tract irritation and/or coughing.

Ingestion: May be fatal if inhaled and enters airways. Material is known to cause human aspiration toxicity hazards. If ingested, irritating to mouth, throat, and stomach, may cause reproductive effects.

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.

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

Acute Toxicity Data

Product/ingredient name	Method	Species	Dose	Exposure	Result
n-Butyl Alcohol	LD_{50} Oral	Rat	790 mg/kg	4 h	–
n-Butyl Alcohol	OECD 402 Dermal	Rabbit	3,430 mg/kg	4 h	
n-Butyl Alcohol	OECD 403 Inhalation	Rat	>8,000 ppm		–
Methyl ethyl ketone	LD_{50} Oral	Rat	2,737 mg/kg		–
Methyl ethyl ketone	LD_{50} Dermal	Rabbit	6,480 mg/kg	4 h	–
Methyl ethyl ketone	LC_{50} Inhalation	Rat	320 mg/l	4 h	–
Cumene	OECD 401 Oral	Rat	5,000 mg/kg	4 h	–
Cumene	LD_{50} Dermal	Rabbit	>2,000 mg/kg	4 h	–
Cumene	LC_{50} Inhalation	Rat	29 mg/l	4 h	–

Ethylbenzene	LD_{50} Oral	Rat	3,500 mg/kg		
Ethylbenzene	LD_{50} Dermal	Rabbit	15,433 mg/kg		
Ethylbenzene	LC_{50} Inhalation	Rat	No Data		
Methyl isobutyl ketone	OECD 401 Oral	Rat	2,080 mg/kg		
Methyl isobutyl ketone	OECD 402 Dermal	Rabbit	2,000 mg/kg		
Methyl isobutyl ketone	LC_{50} Inhalation	Rat	10 mg/l		
Toluene	LD_{50} Oral	Rat	5,580 mg/kg		
Toluene	LD_{50} Dermal	Rabbit	12,196 mg/kg	4 h	
Toluene	LC_{50} Inhalation	Rat	20,800 mgm^3		
Xylenes	LD_{50} Oral	Rat	3,523 mg/kg	4 h	–
Xylenes	LD_{50} Dermal	Rabbit	1,100 mg/kg	4 h	Irritation
Xylenes	LC_{50} Inhalation	Rat	5,000 mg/kg	4 h	–

OCED: Organization for Economic Cooperation and Development.

Skin corrosion / irritation

Harmful in contact with skin.

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.

Germ cell mutagenicity

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

Component	Test	Result
n-Butyl alcohol	OECD 476	Negative
Methyl ethyl ketone	OECD 476	Negative
Cumene	In vitro	Negative
Ethylbenzene	In vivo	Negative
Methyl isobutyl ketone	OECD 471	Negative
Toluene	In vivo	Negative
Xylenes	OECD 478	Negative

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

Carcinogenicity

Component	Classification	Listing Body
n-Butyl alcohol	Not Listed	**IARC**
n-Butyl alcohol	Not Listed	**NTP**
Methyl ethyl ketone	Not Listed	**IARC**
Methyl ethyl ketone	Not Listed	**NTP**
Cumene	Group 2B – Possibly carcinogenic to humans.	**IARC**
Cumene	Equivocal evidence of carcinogenic activity.	**NTP**
Ethylbenzene	Group 2B – Possibly carcinogenic to humans.	**IARC**
Ethylbenzene	Not Listed	**NTP**
Methyl isobutyl ketone	Group 2B – Possibly carcinogenic to humans.	**IARC**
Methyl isobutyl ketone	Not Listed	**NTP**
Toluene	2B - Group 2B: Possibly carcinogenic to humans.	**IARC**
Toluene	Inadequate study of carcinogenic activity.	**NTP**
Xylenes	Group 3 – Not classifiable as to its carcinogenicity to humans.	**IARC**
Xylenes	Some 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
n-Butyl alcohol	OECD 414	Negative
Methyl ethyl ketone	OECD 414	NOEL 1.0%
Cumene	OECD 414	Negative
Ethylbenzene	OECD 414	Negative
Methyl isobutyl ketone	OECD 414	Negative
Toluene	OECD 416	Negative
Xylenes	OECD 414	Negative

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: May cause respiratory tract irritation.

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

Aspiration hazard category 1. May be fatal if swallowed and enters airways.

Potential chronic health effects

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

Component	Test	Endpoint	Species	Result
n-Butyl alcohol	OECD 403 (inhalation)	NOAEL	Rat	1,516 mg/m^3
n-Butyl alcohol	OECD 404 (dermal)	NOAEL	Rabbit	2,500 mg/kg
n-Butyl alcohol	OECD 408 (oral)	NOAEL	Rat	533 mg/kg
Methyl ethyl ketone	OECD 403 (inhalation)	NOAEL	Rat	2,955 mg/m^3
Methyl ethyl ketone	OECD 404 (dermal)	No data available.		mg/kg
Methyl ethyl ketone	OECD 408 (oral)	NOAEL	Rat	594 mg/kg
Cumene	OECD 403 (inhalation)	NOAEL	Rat	435 mg/m^3
Cumene	OECD 404 (dermal)	No data available.		mg/kg
Cumene	OECD 408 (oral)	NOAEL	Rat	110 mg/kg
Ethylbenzene	OECD 403 (inhalation)	NOAEL	Rat	300 mg/m^3
Ethylbenzene	OECD 404 (dermal)	NOAEL	Rat	3,256 mg/kg
Ethylbenzene	OECD 408 (oral)	NOAEL	Rat	75 mg/kg
Methyl isobutyl ketone	OECD 403 (inhalation)	NOAEL	Rat	1,026 mg/m^3
Methyl isobutyl ketone	OECD 404 (dermal)	No data available.		mg/kg
Methyl isobutyl ketone	OECD 408 (oral)	NOAEL	Rat	250 mg/kg
Toluene	OECD 403 (inhalation)	NOAEL	Rat	300 mg/m^3
Toluene	OECD 404 (dermal)	No data available.		mg/kg
Toluene	OECD 408 (oral)	NOAEL	Rat	128 mg/kg
Xylenes	OECD 403 (inhalation)	NOAEL	Rat	1,500 mg/m^3
Xylenes	OECD 404 (dermal)	No data available.		mg/kg
Xylenes	OECD 408 (oral)	NOAEL.	Rat	2,000 mg/kg

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

12. ECOLOGICAL INFORMATION

Environmental effects

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

Ecotoxicity

Aquatic Toxicity

Toxicity to Fish

Product/ingredient name	Test	Species	Dose	Exposure
n-Butyl alcohol	LC_{50}	Pimephales promelas (fathead minnow)	1,376 mg/l	96 h
Methyl ethyl ketone	LC_{50}	Pimephales promelas (fathead minnow)	100 mg/l	96 h
Cumene	LC_{50}	Oncorthynchus mykiss (rainbow trout)	4.8 mg/l	96 h
Ethylbenzene	LC_{50}	Menidia menidia (atlantic silverside)	5.1 mg/l	96 h
Methyl isobutyl ketone	LC_{50}	Danio rerio (zebra fish)	179 mg/l	96 h
Toluene	LC_{50}	Oncorthynchus mykiss (rainbow trout)	5.5 mg/l	96 h
Xylenes	LC_{50}	Oncorthynchus mykiss (rainbow trout)	2.6 mg/l	96 h

Toxicity to aquatic invertebrates

Product/ingredient name	Test	Species	Dose	Exposure
n-Butyl alcohol	EC_{50}	Daphnia magna (water flea)	1,328 mg/l	48 h
Methyl ethyl ketone	EC_{50}	Daphnia magna (water flea)	100 mg/l	48 h
Cumene	EC_{50}	Daphnia magna (water flea)	2.14 mg/l	48 h
Ethylbenzene	EC_{50}	Daphnia magna (water flea)	2.4 mg/l	48 h
Methyl isobutyl ketone	EC_{50}	Daphnia magna (water flea)	200 mg/l	48 h
Toluene	EC_{50}	Ceriodaphnia dubia (water flea)	3.78 mg/l	48 h
Xylenes	EC_{50}	Daphnia magna (water flea)	1.0 mg/l	24 h

Persistence and degradability

Product/ingredient name	Test	Concentration	Result
n-Butyl alcohol	Anaerobic 19 – days	98%	Readily biodegradable
Methyl ethyl ketone	Anaerobic 28 – days	98%	Readily biodegradable
Cumene	Aerobic 20 – days	88%	Readily biodegradable
Ethylbenzene	Aerobic 28 – days	80%	Readily biodegradable
Methyl isobutyl ketone	Aerobic 28 – days	83%	Readily biodegradable
Toluene	Aerobic – 28 – days	100%	Readily biodegradable
Xylenes	Anaerobic 20 – days	72%	Readily biodegradable

Bioaccumulative potential

Product/ingredient name	Log K_{ow}	BCF	Potential
n-Butyl alcohol	0.88	3.16	Low
Methyl ethyl ketone	2.49	1.05	Low
Cumene	3.66	36.00	Moderate
Ethylbenzene	4.34	53.00	Moderate
Methyl isobutyl ketone	1.31	2.00	Low
Toluene	2.72	13.0	Moderate
Xylenes	3.12	2.14	Low

Mobility in soil

Product/ingredient name	
n-Butyl alcohol	High mobility
Methyl ethyl ketone	High mobility
Cumene	Slight mobility

Ethylbenzene	Moderate mobility
Methyl isobutyl ketone	High mobility
Toluene	Moderate mobility
Xylenes	Moderate mobility

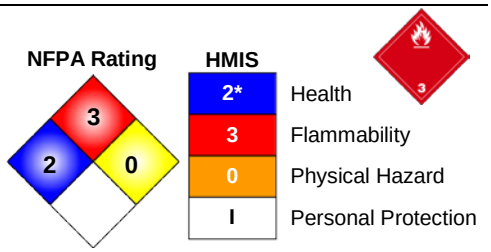
13. DISPOSAL CONSIDERATIONS

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	PAINT RELATED MATERIAL
Hazard Class	3
ID Number	UN1263
Packing Group	II
Emergency Contact	INFOTRAC +1-352-323-3500 (U.S. Toll Free: 800-535-5053)

TRANSPORT CANADA

Proper Shipping Name	PAINT RELATED MATERIAL
Hazard Class	3
ID Number	UN1263
Packing Group	II
Emergency phone	+1-352-323-3500 (U.S. Toll Free: 800-535-5053)

IMO/IMDG

Proper Shipping Name	PAINT RELATED MATERIAL
Hazard Class	3
ID Number	UN1263
Packing Group	II
Emergency phone	+1-352-323-3500 (U.S. Toll Free: 800-535-5053)
Stowage Location	B
EmS Fire / EmS Spill	F-E / S-E

IATA/DGR

Proper Shipping Name	Paint Related Material
Hazard Class	3
ID Number	UN1263
Packing Group	II
Emergency phone	+1-352-323-3500 (US Toll Free: 800-535-5053)

Passenger and Cargo Aircraft	Quantity limitation: Packaging instruction: Special Provisions: ERG Code:	1.3 US-Gal (5 L) 353 A3, A72, A192 3L
Cargo Aircraft Only	Quantity limitation: Packaging instruction: Special Provisions: ERG Code:	15.9 US-Gal (60 L) 364 A3, A72, A192 3L

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Nombre propio del transporte	PRODUCTOS PARA PINTURA
Clase de peligro	3
Número de identificación del	UN1263
Grupo de embalaje	II
teléfono de emergencia	+1-352-323-3500 (U.S. Toll Free: 800-535-5053)

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

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.
n-Butyl alcohol	71-36-3
Methyl ethyl ketone	78-93-3
Cumene	98-82-8
Ethylbenzene	100-41-4
Methyl isobutyl ketone	108-10-1
Toluene	108-88-3
Xylenes	1330-20-7

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
n-Butyl alcohol	71-36-3	A, D, F
Methyl ethyl ketone	78-93-3	A, D, F
Cumene	98-82-8	D, F
Ethylbenzene	100-41-4	D, F
Methyl isobutyl ketone	108-10-1	A, D, F
Toluene	108-88-3	A, D, F
Xylenes	1330-20-7	A, D, F

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

Ingredient(s)	CAS No.
n-Butyl alcohol	71-36-3
Methyl ethyl ketone	78-93-3
Cumene	98-82-8
Ethylbenzene	100-41-4
Methyl isobutyl ketone	108-10-1
Toluene	108-88-3
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): 829.20 g/l, (6.92 lb/gal)

Section 112(b) Hazardous Air Pollutants (HAPs):
42 U.S. Code § 7412 - Hazardous air pollutants

Ingredient(s)	CAS No.
Methyl ethyl ketone	78-93-3
Cumene	98-82-8
Ethylbenzene	100-41-4
Methyl isobutyl ketone	108-10-1
Toluene	108-88-3
Xylenes	1330-20-7

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 chemicals known to the State of California to cause cancer, birth defects, or any other harm.

Ingredient(s)	CAS No.
Cumene	98-82-8
Ethylbenzene	100-41-4
Methyl isobutyl ketone	108-10-1
Toluene	108-88-3

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.
n-Butyl alcohol	71-36-3

USA, Michigan Critical Materials Register (CMR) Components:

Ingredient(s)	CAS No.
Toluene	108-88-3
Xylenes	1330-20-7

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

Ingredient(s)	CAS No.
n-Butyl alcohol	71-36-3
Methyl ethyl ketone	78-93-3
Cumene	98-82-8
Ethylbenzene	100-41-4
Methyl isobutyl ketone	108-10-1

Toluene	108-88-3
Xylenes	1330-20-7

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

Ingredient(s)	CAS No.
n-Butyl alcohol	71-36-3
Methyl ethyl ketone	78-93-3
Cumene	98-82-8
Ethylbenzene	100-41-4
Methyl isobutyl ketone	108-10-1
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.

Notification status

The components of this material are reported in the following inventories, on the inventory or in compliance with the inventory.

Australia:	Inventory of Chemical Substances (AICS)	y (positive listing)
Canada:	Canadian Domestic Substances List (DSL)	y (positive listing)
China:	Inventory of Existing Chemical Substances (IECSC)	y (positive listing)
European Union:	European Inventory of Existing Chemical substances (EINECS)	y (positive listing)
Japan:	Existing and New Chemical Substances Inventory (ENCS)	y (positive listing)
Korea:	Korean Existing Chemicals Inventory (KECI)	y (positive listing)
New Zealand:	Inventory of Chemical Substances	Y (positive listing)
Philippines:	Inventory of Chemicals and Chemical Substances (PICCS)	y (positive listing)
United States:	Toxic Substances Control Act (TSCA) Inventory	y (positive listing)

16. OTHER INFORMATION

Preparation Information

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

Revision: 2-08072019, Product Code: C004-1-0C0

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 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.