

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

GHS Product Code: C243-A-0C0
 Product Name: CORCHEM® 243 CHEMICAL RESISTANT ESTER 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 (U.S. Toll Free: 800-535-5053)
 Contract No.: 74435
 Revision: 2-03192019

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

Type F	Organic Peroxides
Category 1	Aspiration hazard Serious eye damage
Category 1B	Skin corrosion
Category 2	Carcinogenicity Acute toxicity – Inhalation Acute aquatic toxicity Chronic aquatic toxicity Specific target organ toxicity – repeated exposure STOT-RE: Respiratory system
Category 3	Specific target organ toxicity – single exposure STOT-SE: Respiratory system
Category 4	Acute toxicity, Oral Acute toxicity, Dermal Flammable liquid and vapor

NFPA Rating

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

5.2

GHS Label elements, including precautionary statements

Hazard Pictograms



Signal word: Danger

GHS Hazard statement(s)

H226: Flammable liquid and vapour.
 H242: Heating may cause a fire.
 H302 + H312: Harmful if swallowed or in contact with skin.
 H304: May be fatal if swallowed and enters airways.
 H314: Causes severe skin burns and eye damage.
 H331: Toxic if inhaled.

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



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- H351: Suspected of causing cancer.
 H373: May cause damage to organs through prolonged or repeated exposure.
 H411: Toxic to aquatic life with long lasting effects.

GHS Precautionary statement(s)

- P102: Keep out of reach of children.
 P103: Read label before use.
 P202: Do not handle until all safety precautions have been read and understood.
 P210: Keep away from heat/ sparks/ open flames/ hot surfaces – No smoking.
 P220: Keep/Store away from clothing/ 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/.../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 out doors 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.
 P284: Wear respiratory protection.
 P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304 + P340: IN INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308 + P313: IF exposed or concerned: get medical advice/ attention.
 P363: Wash contaminated clothing before reuse.
 P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
 P391: Collect spillage.
 P401: Store in a stable environment, climate controlled above 40°F (4°C) and below 77°F (25°C) in its original sealed container.
 P405: Store locked up.
 P410: Protect from sunlight.
P411+235: Store at temperatures not exceeding 86°F (30°C). Keep cool
 P420: Store away from other materials.
 P501: Dispose of contents/container to comply with the requirements of environmental protection and waste disposal legislation and any regional, local authority requirements.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient(s)</u>	<u>CAS No.</u>	<u>% (by Weight)</u>
Cumene hydroperoxide	80-15-9	>80
Benzene, (1-methylethyl)-	98-82-8	>10
Acetophenone	98-86-2	<5
Dimethyl phenyl carbinol	617-94-7	<5

SECTION 4: FIRST AID MEASURES

Ingestion

POISON! Call a Poison Control Center immediately. 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; remove contact lenses if present and easy to do so. 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 ingested.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray, alcohol-resistant foam, dry chemical or carbon dioxide, (CO₂).

Unsuitable extinguishing media

High volume water jet. Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters.

NOTE: Dry Chemicals combined with peroxide may reignite fire.

Specific hazards and by-products from combustion

Contact with incompatible materials or exposure to temperatures exceeding SADT may result in a self-accelerating decomposition reaction with release of flammable vapors which may auto-ignite.

- This product burns violently.
- Flashback possible over considerable distance.
- Vapors may form explosive mixtures with air.
- The product will float on water and can be reignited on surface water.
- Cool closed containers exposed to fire with water spray.

Burning produces noxious and toxic fumes. **Downwind personnel must be evacuated.** Decomposition products may be toxic and include the following materials: carbon oxides; aromatic derivatives. Fumes and vapors from the thermal and chemical decompositions vary widely in composition and toxicity.

Special protective equipment and precautions for fire-fighters

CAUTION: Organic Peroxide TYPE F, self-accelerating decomposition temperature (SADT) 140°F (60°C).

If dry chemical is used to extinguish a peroxide fire, the extinguished area must be thoroughly wetted down with water to prevent reignition.

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

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

Closed Cup method: 53°C (127°F)

Explosive limit

Lower flammable limit (LFL): 0.9% (V)

Upper flammable limit (UFL): 6.5% (V)

Autoignition temperature

Approximately 210°C (410°F)

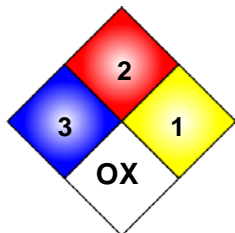
Fire and explosion hazards

In a fire or if heated, a pressure increase will occur and the container may burst. Containers near the source of the fire should be cooled with water spray to prevent contents from reaching decomposition temperature. Exposure to temperatures exceeding the self-accelerating decomposition temperature (SADT) may result in a self accelerating decomposition reaction with release of flammable vapors which may auto ignite.

Extinguishing organic peroxide-fed fires is extremely difficult since the chemical provides the necessary oxygen to support combustion. Organic peroxides are chemically unstable and will burn vigorously, and once ignited will be difficult to extinguish. Combustible materials contaminated with most organic peroxides can catch fire very easily, even spontaneously, and burn very intensely. May decompose very rapidly or explosively when exposed to heat, friction, mechanical-shock, or contaminated with incompatible materials. May give off flammable vapors during decomposition.

NFPA Rating

Health:	3
Flammability:	2
Reactivity:	1
Special:	OX



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).

- Remove all sources of ignition.
- Beware of vapors accumulating to form explosive concentrations.
- Vapors can accumulate in low areas.
- Never return spills to original containers for re-use.

Environmental Precautions

Prevent 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

CONTACT WITH INCOMPATIBLE SUBSTANCES CAN CAUSE DECOMPOSITION AT OR BELOW SADT.

Stop leak if possible without risk. Use inert, non-combustible absorbent material such as sodium bicarbonate, sodium carbonate, calcium carbonate, clean sand or non-acidic clay directly on the spilled peroxide, then wet down (dampen the mixture with water). **DO NOT use vermiculite or peat moss.** Sweep or scoop up using nonsparking tools and place into suitable container for disposal. Sweepings should be wetted down further with water. Dispose promptly. Dispose of via a licensed waste disposal contractor. Persons not wearing proper personal protective equipment should be excluded from area of spill.

COLLECT CONTAMINATED MATERIAL SEPARATELY. RESIDUES AND CONTAMINATED MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS.

Large Spill

CONTACT WITH INCOMPATIBLE SUBSTANCES CAN CAUSE DECOMPOSITION AT OR BELOW SADT.

Stop leak if possible without risk. Move containers from spill area. Use inert, non-combustible absorbent material such as sodium bicarbonate, sodium carbonate, calcium carbonate, clean sand or non-acidic clay directly on the spilled peroxide, then wet down (dampen the mixture with water). **DO NOT use vermiculite or peat moss.** Sweep or scoop up using nonsparking tools and place into suitable container for disposal. Sweepings should be wetted down further with water, (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 MATERIAL SEPARATELY. RESIDUES AND CONTAMINATED MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS.

SECTION 7: HANDLING AND STORAGE

Advice on protection against fire and explosion

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from heat and sources of ignition. Use only explosion-proof equipment. Keep away from combustible materials.

Handling

KEEP CONTAINER TIGHTLY CLOSED TO PREVENT CONTAMINATION. USE SPARK-PROOF TOOLS AND EXPLOSION-PROOF EQUIPMENT. 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, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. **KEEP AWAY FROM HEAT, SPARKS, FLAME, AND OTHER IGNITION SOURCES. DO NOT EXPOSE TO DIRECT SUNLIGHT.**

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

TEMPERATURE SENSITIVE MATERIAL! Storage Life decreases with increasing temperature. Do not store this material near potential heat sources; **This material should never be stored in direct sunlight.**

REGULATED AS AN ORGANIC PEROXIDE, CLASS 5.2, FOR STORAGE AND HANDLING. STORE IN ORIGINAL CONTAINERS AWAY FROM INCOMPATIBLE MATERIALS, DIRECT SUNLIGHT, FLAMES, AND ALL SOURCES OF HEAT AND/OR IGNITION.

Store in accordance with local regulations. Store in a stable environment, climate controlled above 40°F and below 77°F, in its original sealed container, away from incompatible materials (see section 10), food, and drink. Outside or detached storage is preferred. 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. Refer to National Fire Protection Association (NFPA) Code 432, Code for the Storage of Organic Peroxide Formulations. 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.

OPEN CONTAINERS CAUTIOUSLY, IN CASE THEY MAY BE UNDER SLIGHT PRESSURE. HAVE GOOD VENTILATION AND SUITABLE PROTECTIVE EQUIPMENT IN AREAS WHERE CONTAINERS WILL BE OPENED. KEEP CONTAINERS TIGHTLY CLOSED TO PREVENT CONTAMINATION.

Can cause skin irritation, eye irritation, and allergic skin reaction. Avoid contact with eyes, skin, and clothing. Wash thoroughly after using. **DO NOT TAKE INTERNALLY! HARMFUL IF SWALLOWED! FOR PROFESSIONAL USE ONLY.** Use protective skin cream such as FEND2 (MSA) where skin contact is likely. Prevent prolonged or repeated breathing of vapor, or spray mists. Liquid penetrated shoes and leather, causing delayed irritation or skin reactions. **KEEP OUT OF REACH OF CHILDREN. DO NOT HANDLE UNTIL THE MANUFACTURER'S INSTRUCTIONS AND SAFETY PRECAUTIONS HAVE BEEN READ AND UNDERSTOOD!** Contact manufacturer if further information is required.

OPENED, PARTIAL, AND EMPTY CONTAINERS RETAIN PRODUCT RESIDUE AND CAN BE HAZARDOUS. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THIS SAFETY DATA SHEET (SDS) MUST BE OBSERVED.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit(s)

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>
Cumene hydroperoxide	IDLH	NIOSH	ppm	mg/m ³	OEL Not Established
Cumene hydroperoxide	TWA	U.S. WEEL	1 ppm	6 mg/m ³	
Cumene hydroperoxide	TLV	ACGIH	ppm	mg/m ³	OEL Not Established
Benzene, (1-methylethyl)-	IDLH	NIOSH	900 ppm	4,424 mg/m ³	
Benzene, (1-methylethyl)-	TWA	OSHA	50 ppm	245 mg/m ³	
Benzene, (1-methylethyl)-	TLV	ACGIH	50 ppm	245 mg/m ³	
Acetophenone	IDLH	NIOSH	ppm	mg/m ³	OEL Not Established
Acetophenone	TWA	U.S. WEEL	10 ppm	50 mg/m ³	
Acetophenone	TLV	ACGIH	10 ppm	50 mg/m ³	
Dimethyl phenyl carbinol	IDLH	NIOSH	ppm	mg/m ³	OEL Not Established
Dimethyl phenyl carbinol	TWA	OSHA	800 ppm	3,474 mg/m ³	
Dimethyl phenyl carbinol	TLV	ACGIH	ppm	mg/m ³	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.

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.):	Yellowish or colorless liquid
Odor:	Aromatic, pungent
Odor Threshold:	Not available
pH:	5 – 6
Melting Point / Freezing Point:	16°F (-9°C)
Initial Boiling Point and Range:	Approximately 127°F (53°C) 0.1 mmHg

Flash Point:	127°F (53°C) (method: closed cup)
Evaporation Rate:	Not available.
Flammability (solid, gas):	Not available.
Upper/Lower flammability or explosive limits:	UFL: 6.5% (V) / LFL: 0.9% (V).
Vapor Pressure:	0.033 mmHg at 77°F (25°C)
Vapor Density:	Not available.
Relative vapor density:	5.4 at 68°F (20°C)
Solubility in water:	1.9 g/l at 77°F (25°C)
Partition coefficient: <i>n</i>- octanol/water:	Not available.
Auto-ignition temperature:	Approximately 210°C (410°F)
Self Accelerating Decomposition Temperature (SADT):	140°F (60°C) (Method: UN Test H.4)
Percent solids by weight:	0.00
Percent solids by volume:	0.00
Active Oxygen %:	8.4 – 8.82
Specific Gravity:	1.06 @ 20° C (68° F)
Weight per gallon:	8.83 lbs./gal

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:

This product is chemically unstable and should only be handled under specified conditions. **THIS PRODUCT IS STABLE ONLY WHEN STORED AT, OR BELOW, THE RECOMMENDED MAXIMUM TEMPERATURE.** (see Section 7)

Possibility of hazardous reactions:

Type F Organic Peroxides are materials that have shown hazards such as partial detonation, etc., when tested in a laboratory but do not possess these hazards as packaged. Organic Peroxides are strong oxidizing agents. Combustible materials contaminated with organic peroxides can catch fire very easily, even spontaneously, and burn very intensely. Extinguishing organic peroxide-fed fires is extremely difficult since the chemical provides the necessary oxygen to support combustion.

Organic Peroxide decomposition can also be initiated by chemical contaminants, particularly oxidizing and reducing agents, metal salts, and strong mineral acids. Heavy metals and alloys are another contaminant concern.

Conditions to avoid:

See Section 7 Handling and Storage of this SDS for specified conditions. SADT – Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction. This reaction will generate flammable vapors which may auto ignite. The length of time to generate a decomposition reaction, after the SADT has been reached or exceeded, is dependent upon how much the SADT has been exceeded and the length of time needed for the reaction exotherm (heat spike from increasing decomposition rate) to initiate a rapid decomposition reaction. Typically, SADT is inversely proportional to package size. Larger packages will have a lower SADT due to smaller ratio to heat transfer area to volume of product.

CONTAMINATION WITH ANY FOREIGN SUBSTANCE, EXPOSURE TO HEAT, PROTECT FROM DIRECT SUNLIGHT. HEAT, FLAMES, SPARKS, AND OTHER IGNITION SOURCES. AVOID HEATING ABOVE 86°F (30°C). 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:

Reacts violently with strong acids, strong bases, sulphur compounds, reducing agents, oxidizing agents, heavy metals, amines and rust. Amines, accelerators, promoters, other reactive chemicals. Incompatible with bases, reducing agents, oxidizing agents, nitrous acid and other nitrosating agents, organic acids (i.e. acetic acid, citric acid etc.), mineral acids, sodium hypochlorite, reactive metals, (i.e. sodium, calcium, zinc etc.), metal oxides, heavy metal salts.

Hazardous Polymerization:

Is possible if product undergoes thermal decomposition.

Hazardous Decomposition or By-Products:

Thermal decomposition yields flammable and toxic products: aromatic derivatives, carbon oxides. Organic Peroxide TYPE F, **Self-Accelerating Decomposition Temperature (SADT)** 140°F (60°C). 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:** Harmful or fatal if swallowed and enters airways. Causes respiratory tract irritation. Vapors may cause drowsiness.
- Skin:** Harmful if absorbed through skin. Causes skin irritation.
- Eyes:** Causes severe eye damage.
- Inhalation:** Harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness.

Acute Toxicity Data

Product/ingredient name	Method	Species	Dose	Exposure	Result
Cumene hydroperoxide	OECD 403 Inhalation	Rat	1.24 mg/L	4 h	LC ₅₀
Cumene hydroperoxide	LD ₅₀ Oral	Rat	382 mg/kg	4 h	–
Cumene hydroperoxide	OECD 402 Dermal	Rat	500 mg/kg	4 h	LD ₅₀
Benzene, (1-methylethyl)-	LC ₅₀ Inhalation	–	No data available	–	–
Benzene, (1-methylethyl)-	LD ₅₀ Oral	Rat	2,260 mg/kg	4 h	LD ₅₀
Benzene, (1-methylethyl)-	LD ₅₀ Dermal	Rabbit	4,300 mg/kg	4 h	LD ₅₀
Acetophenone	LC ₅₀ Inhalation	–	No data available	–	–
Acetophenone	OECD 401 Oral	Rat	2,081 mg/kg	4 hr	LD ₅₀
Acetophenone	OECD 402 Dermal	Rabbit	3,300 mg/kg	4 hr	LD ₅₀
Dimethyl phenyl carbinol	OECD 403 Inhalation	Rat	No data available	–	–
Dimethyl phenyl carbinol	LD ₅₀ Oral	Rat	1,300 mg/kg	24 hr	–
Dimethyl phenyl carbinol	OECD 402 Dermal	Rabbit	4,300 mg/kg	24 hr	LC ₅₀

OECD: 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.

Skin corrosion / irritation

Harmful in contact with skin. Causes skin corrosion.

Serious eye damage / irritation

Causes serious eye damage.

Respiratory or skin sensitization

Not sensitizing causes skin irritation.

Germ cell Mutagenicity

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

Component	Test	Result
Cumene hydroperoxide	OECD 478	Positive
Benzene, (1-methylethyl)-	In vivo	Positive
Acetophenone	OECD 478	No Data
Dimethyl phenyl carbinol	In vivo	No Data

OECD: Organization for Economic Cooperation and Development.

LOEL: "Lowest-observed-effect-level".

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

Carcinogenicity

Component	Classification	Listing Body
Cumene hydroperoxide	Not Listed	IARC
Cumene hydroperoxide	Not Listed	NTP
Benzene, (1-methylethyl)-	Group 2B – Possibly carcinogenic to humans.	IARC
Benzene, (1-methylethyl)-	Clear evidence of carcinogenic activity	NTP

Acetophenone	Not Listed	IARC
Acetophenone	Not Listed	NTP
Dimethyl phenyl carbinol	Not Listed	IARC
Dimethyl phenyl carbinol	Not Listed	NTP

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

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

Reproductive toxicity

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

Component	Test	Result
Cumene hydroperoxide	OECD 422	NOAEL – 3 mg/kg
Benzene, (1-methylethyl)-	No Data	–
Acetophenone	No Data	–
Dimethyl phenyl carbinol	No Data	–

OECD: Organization for Economic Cooperation and Development.

LOEL: "Lowest-observed-effect-level".

NOEL: "No-observable-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, Auditory System, Eyes: 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
Cumene hydroperoxide	OECD 403 (inhalation)	NOAEL	Rat	31 mg/m ³
Cumene hydroperoxide	OECD 404 (dermal)	NOAEL	Rabbit	88 mg/m ³
Cumene hydroperoxide	OECD 408 (oral)	NOAEL	Rat	30 mg/kg
Benzene, (1-methylethyl)-	OECD 403 (inhalation)	NOAEL	Rat	491 mg/m ³
Benzene, (1-methylethyl)-	OECD 404 (dermal)	NOAEL	Rat	No Data
Benzene, (1-methylethyl)-	OECD 408 (oral)	NOAEL	Rat	110 mg/kg
Acetophenone	OECD 403 (inhalation)	NOAEL	Rat	No Data
Acetophenone	OECD 404 (dermal)	No Data		No Data
Acetophenone	OECD 408 (oral)	NOAEL	Rat	No Data
Dimethyl phenyl carbinol	OECD 403 (inhalation)	NOAEL	Rat	No Data
Dimethyl phenyl carbinol	OECD 404 (dermal)	LOEL	Rat	No Data
Dimethyl phenyl carbinol	OECD 408 (oral)	NOAEL	Rat	No Data

OECD: Organization for Economic Cooperation and Development.

LOEL: "Lowest-observed-effect-level".

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

SECTION 12: ECOLOGICAL INFORMATION

Environmental effects

Toxic to aquatic organisms, water polluting material. May be harmful to the environment if released in large quantities.

Ecotoxicity

Aquatic ecotoxicity

Aquatic Toxicity to Fish

Product/ingredient name	Test	Species	Dose	Exposure
Cumene hydroperoxide	LC ₅₀	Oncorhynchus mykiss (rainbow trout)	3.9 mg/l	96 h
Benzene, (1-methylethyl)-	LC ₅₀	Oncorhynchus mykiss (rainbow trout)	4.8 mg/l	96 h
Acetophenone	LC ₅₀	Pimephales promelas (fathead minnow)	162 mg/l	96 h
Dimethyl phenyl carbinol	LC ₅₀	No data available	–	–

Toxicity to aquatic invertebrates

Product/ingredient name	Test	Species	Dose	Exposure
Cumene hydroperoxide	EC ₅₀	Daphnia magna (water flea)	18.84 mg/l	48 h
Benzene, (1-methylethyl)-	EC ₅₀	Daphnia magna (water flea)	2.14 mg/l	48 h
Acetophenone	EC ₅₀	No data available	–	–
Dimethyl phenyl carbinol	EC ₅₀	No data available	–	–

Toxicity to aquatic algae and cyanobacteria

Product/ingredient name	Test	Species	Dose	Exposure
Cumene hydroperoxide	EC ₅₀	No Data		
Benzene, (1-methylethyl)-	EC ₅₀	Daphnia magna (water flea)	mg/l	72 h
Acetophenone	EC ₅₀	No data available	–	–
Dimethyl phenyl carbinol	EC ₅₀	No data available	–	–

Persistence and degradability

Product/ingredient name	Test	Concentration	Result
Cumene hydroperoxide	aerobic	3 %	Not readily biodegradable
Benzene, (1-methylethyl)-	aerobic	13%	Not readily biodegradable
Acetophenone	No data available	–	No data available
Dimethyl phenyl carbinol	No data available	–	No data available

Bioaccumulative potential

Product/ingredient name	Log K _{ow}	BCF	Potential
Cumene hydroperoxide	1.6	9.1	Low
Benzene, (1-methylethyl)-	No data	No data	No data
Acetophenone	No data	No data	No data
Dimethyl phenyl carbinol	No data	No data	No data

Mobility in soil

Product/ingredient name	
Cumene hydroperoxide	No data available
Benzene, (1-methylethyl)-	No data available
Acetophenone	No data available
Dimethyl phenyl carbinol	No data available

Other adverse affects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method

Dilution followed by incineration is the preferred method of disposal. A dilution ratio of 10:1 in a clean, compatible, combustible solvent such as Fuel Oil #2 or mineral oil will reduce the reactivity hazard during incineration and transportation.

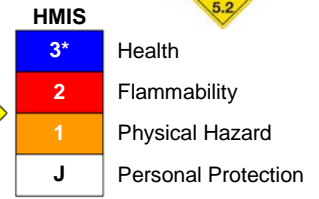
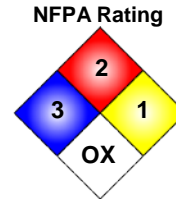
Consult local, state and federal hazardous waste regulators before disposing of waste materials. The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a

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 ORGANIC PEROXIDE TYPE F, LIQUID (Cumyl hydroperoxide, <=90%)
Hazard Class 5.2, (8)
ID Number UN3109
Packing Group
Marine Pollutant Yes
Emergency phone +1-352-323-3500 (US Toll Free: 800-535-5053)



TRANSPORT CANADA

Proper Shipping Name ORGANIC PEROXIDE TYPE F, LIQUID (Cumyl hydroperoxide, <=90%)
Hazard Class 5.2, (8)
ID Number UN3109
Packing Group
Marine Pollutant Yes
Emergency phone +1-352-323-3500 (US Toll Free: 800-535-5053)

IMO/IMDG

Proper Shipping Name ORGANIC PEROXIDE TYPE F, LIQUID (Cumyl hydroperoxide, <=90%)
Hazard Class 5.2, (8)
ID Number UN3109
Packing Group
Marine Pollutant Yes
Emergency phone +1-352-323-3500 (US Toll Free: 800-535-5053)
Stowage and handling Stowage Category: D – "On deck only"
Stowage Code: SW1 – "Protected from sources of heat"
Segregation codes SG35 ,SG36, SG72
EmS Fire / EmS Spill F-J / S-R

IATA/DGR

Proper Shipping Name ORGANIC PEROXIDE TYPE F, LIQUID (Cumyl hydroperoxide, <=90%)
Hazard Class 5.2, (8)
ID Number UN3109
Packing Group
Marine Pollutant Yes
Emergency phone +1-352-323-3500 (US Toll Free: 800-535-5053)
Passenger and Cargo Aircraft Quantity limitation: LTD-QTY – FORBIDDEN
Quantity limitation: 2.64 US-Gal (10 L)
Packaging instruction: 570
Special Provision: A20, A150, A802
ERG Code: 5L
Cargo Aircraft Only Quantity limitation: 6.60 US-Gal (25 L)
Packaging instruction: 570
Special Provision: A20, A150, A802
ERG Code: 5L

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Nombre propio del transporte PERÓXIDO ORGÁNICO DE TIPO F, LÍQUIDO
Clase de peligro 5.2 (8)

Número de identificación del UN3109
 Grupo de embalaje
 Contaminante Marino Sí
 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>Statutory Code</u>	<u>RCRA Waste No.</u>	<u>Reportable Quantity</u>	
				<u>Pounds</u>	<u>Kilograms</u>
Cumene hydroperoxide	80-15-9	4	U096	10	4.54
Benzene, (1-methylethyl)-	98-82-8	3, 4	U055	5,000	2,270
Acetophenone	98-86-2	3, 4	U004	5,000	2,270
Dimethyl phenyl carbinol	617-94-7				

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

<u>Ingredient(s)</u>	<u>CAS No.</u>	<u>Category</u>	<u>Note</u>	<u>RQ (Lbs.)</u>	<u>TPQ (Lbs.)</u>
Cumene hydroperoxide	80-15-9	A,D,F,R			
Benzene, (1-methylethyl)-	98-82-8	A, D, F			
Acetophenone	98-86-2	A, F			
Dimethyl phenyl carbinol	617-94-7	A			

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

No individual component of this mixture 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)

<u>Ingredient(s)</u>	<u>CAS No.</u>
Cumene hydroperoxide	80-15-9
Benzene, (1-methylethyl)-	98-82-8
Acetophenone	98-86-2

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): 1,072.00 g/l, (8.95 lb/gal)

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

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

<u>Ingredient(s)</u>	<u>CAS No.</u>
Benzene, (1-methylethyl)-	98-82-8
Acetophenone	98-86-2

Ozone Depleting Substances (ODS):

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

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

State Regulations

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

<u>Ingredient(s)</u>	<u>CAS-No.</u>	<u>Date Listed</u>
Benzene, (1-methylethyl)-	98-82-8	04/06/2010

USA, Louisiana Right-to-Know Components:

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

USA, Massachusetts Right-to-Know Components:

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

USA, Michigan Right-to-Know Components:

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

USA, New Jersey Right-to-Know:

<u>Ingredient(s)</u>	<u>CAS No.</u>
Cumene hydroperoxide	80-15-9
Benzene, (1-methylethyl)-	98-82-8
Acetophenone	98-86-2

USA, Pennsylvania Right-to-Know:

<u>Ingredient(s)</u>	<u>CAS No.</u>
Cumene hydroperoxide	80-15-9
Benzene, (1-methylethyl)-	98-82-8
Acetophenone	98-86-2

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 SDS has been prepared by CORCHEM® Corporation.

Revision: 2-03272019, Product Code: C243-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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