

Safety Data Sheet



RCC Corrosion Control / SDS #: RCC-21001 / Revision Date: 05/23/2022

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: HARDENER NO. 1 Various Colors

Chemical Family: Organic peroxide & Aromatic compounds blend

Product Use: Polymerization initiator

Restrictions on Use: Use as directed by manufacturer

Manufacturer: RCC Corrosion Control
1450 Hoff Industrial Drive
O'Fallon, MO 63366
Phone: 636-697-4659

24-Hour Emergency Phone Number: North America: 800-424-9300 (CHEMTREC)
International: 703-527-3887 (CHEMTREC) Collect Calls Accepted

2. HAZARD IDENTIFICATION

GHS Classification

Health Hazards

Acute Toxicity, Oral, Category 4
Acute Toxicity, Dermal, Category 4
Acute Toxicity, Inhalation, Category 3*
Carconogenicity, Category 2
Skin Corrosion, Category 1C
Eye Damage, Category 1
Skin Sensitization, Category 1B
Reproductive Toxicity, Category 2
Aspiration Hazard, Category 1

Physical Hazards

Organic Peroxide, Type F
Flammable Liquid, Category 4

Environmental Hazards

Acute Aquatic Toxicity, Category 2
Chronic Aquatic Toxicity, Category 2

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GHS-Labeling Pictograms:



Signal Word: Danger!

Hazard Statements

H227: Flammable liquid
H242: Heating may cause a fire
H302: Harmful if swallowed
H304: May be fatal if swallowed and enters airways
H312: Harmful in contact with skin
H314: Causes severe skin burns and eye damage
H331: Toxic if inhaled
H351: Suspected of causing cancer
H373: May cause damage to organs through prolonged or repeated exposure if inhaled.
H401: Toxic to aquatic life
H411: Toxic to aquatic life with long lasting effects

Precautionary Statements

Prevention:

P201: Obtain special instructions 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
P233: Keep container tightly closed
P234: Keep only in original container
P260: Do not breathe vapors
P263: Avoid contact during pregnancy/while nursing
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
P272: Contaminated work clothing should not be allowed out of the workplace
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection

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Response:

P301 + P310 + P312: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302 + P352: IF ON SKIN: Wash with plenty of soap and water.

P303 + P361 + P353: IF ON SKIN (hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340: IF 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.

P391: Collect Spillage.

Storage:

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

P410: Protect from sunlight.

P411 + P235: Store at temperatures not exceeding 30°C (86°F). Keep cool.

Disposal:

P501: Dispose of contents/container in accordance with local, regional, and federal regulations

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical characterization

Organic peroxide & Aromatic compounds blend

Component*	CAS #	Weight %
Cumene Hydroperoxide	80-15-9	80 - 90
Cumene (Isopropylbenzene)	98-82-8	2 - 15
Dimethyl Phenyl Carbinol	617-94-7	4 - 8
Acetophenone	98-86-2	0.5 - 1.5

*The above listed components are OSHA hazardous materials which contribute to this products' GHS Hazard Categorization as prescribed in OSHA's Hazard Communication 29 CFR 1910.1200.

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4. FIRST AID MEASURES

Inhalation

Symptoms & Effects: Headache, nausea, irritation of the nose and airways, dizziness, drowsiness, unconsciousness, lack of coordination, & confusion

Measures: Immediately move outdoors or to fresh air. If breathing is difficult, administer oxygen or give artificial respiration. Seek immediate medical attention and keep individual warm and quiet.

Skin Contact

Symptoms & Effects: Severe skin irritation, allergic skin reaction, redness, burning, drying, cracking, severe skin damage, & may be fatal if large quantities are absorbed through the skin for prolonged contact.

Measures: Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. If irritation persists, seek medical attention. Wash contaminated clothing before reuse.

Eye Contact

Symptoms & Effects: Serious eye irritation, stinging sensation, tearing, redness, and swelling of the eyes.

Measures: Immediately flush eyes gently with plenty of water for at least 15 minutes and remove contact lenses, if present and easy to do so. Rinse beneath eyelids by holding eyelids apart with clean fingers while rinsing. Seek immediate medical attention.

Ingestion

Symptoms & Effects: Stomach or intestinal irritation, headache, nausea, vomiting, irritation of the throat, dizziness, drowsiness, weakness, fatigue, unconsciousness, lack of coordination, & confusion. Swallowing this material may be harmful or fatal as material may enter lungs and cause lung damage.

Measures: Immediately call a POISON CENTER or doctor/physician and rinse mouth. DO NOT induce vomiting as this material is an aspiration hazard. If individual is drowsy or unconscious, have the individual lie down on their left side with their head down. Do not give individual anything by mouth if individual is unconscious. If vomiting occurs, lean individual forward so as to minimize aspiration. Do not leave individual unattended.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Carbon dioxide, Water spray

Unsuitable Extinguishing Media: None identified

Hazardous Combustion Products: Aromatic derivatives, Carbon monoxide, Carbon dioxide

Protective Equipment for Fire-Fighters: Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

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Precautions for Fire-Fighters: Contact with incompatible materials or exposure to temperatures exceeding the Self-Accelerating Decomposition Temperature (SADT) of 82°C (180°F) may result in self-accelerating decomposition thus releasing flammable vapors which may auto-ignite. Fight fire with carbon dioxide or large amounts of water from a safe distance. Cool closed containers that have been exposed to fire with water spray.

6. ACCIDENTAL RELEASE MEASURES

Protective Equipment: Recommended to wear chemical splash goggles & resistant gloves, such as polyvinyl alcohol-based gloves, and discard of gloves that show tears, pinholes, or signs of wear. Wear proper garments to prevent skin exposure, such as long-sleeves and pants.

Personal Precautions: Persons not wearing proper PPE should be excluded from the area of contamination until clean-up has been completed. Ensure adequate ventilation. Eliminate all ignition sources and pay attention to the spreading of gases, especially at ground level.

Environmental Precautions: Do not allow discharge into drains, surface waters, or sanitary sewer system. Prevent spreading over a wide area by containment or barriers. Local authorities should be advised if significant spillages cannot be contained or if material discharges into drains or ground water.

Methods & Materials for Clean-Up: Contained spilled material with inert, non-combustible absorbent materials (e.g. sodium bicarbonate, calcium carbonate, sand, earth, diatomaceous earth). DO NOT use vermiculite or peat moss for clean-up. Sweep or scoop up using non-sparking tools and transfer to a suitable container for disposal according to proper federal, state, and local regulations. Clean contaminated floors and objects thoroughly with water and detergents, observing regional environmental regulations.

7. HANDLING AND STORAGE

Handling: Keep containers away from heat, sparks, flames, and other ignition sources. Contact with incompatible materials or exposure to temperatures exceeding the Self-Accelerating Decomposition Temperature (SADT) of 82°C (180°F) may result in self-accelerating decomposition which releases flammable vapors which may auto-ignite. Do not cut, drill, grind, or weld on or near this container. Do not reuse container as it may retain hazardous product residue. Use material only with adequate ventilation and avoid breathing vapors. Refer to Section 8 of this SDS for proper PPE.

Storage: DO NOT store at temperatures exceeding 30°C (86°F). Keep container cool, tightly closed and in a well-ventilated place. Keep container locked up and away from direct sunlight. Keep away from food, drink, and animal foodstuffs.

Incompatible Materials: Strong acids, Strong bases, Sulfur compounds, Reducing agents, Oxidizing agents, Heavy metals, Amines, Rust

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8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure Limits :

Cumene Hydroperoxide	CAS # 98-82-8	
AIHA WEEL	Threshold Limit Value (TWA)	0.1 ppm
OSHA	Permissible Exposure Limit (PEL)	None Established
ACGIH	Threshold Limiting Value (TLV)	None Established
NIOSH	Recommended Exposure Limit (REL)/(STEL)	None Established

Cumene	CAS # 98-82-8	
OSHA	Permissible Exposure Limit (PEL)	100 ppm (Ceiling)
ACGIH	Threshold Limiting Value (TLV)	0.1 ppm
NIOSH	Recommended Exposure Limit (REL)/(STEL)	5 ppm/20ppm

Isopropylbenzene	CAS # 98-83-9	
OSHA	Permissible Exposure Limit (PEL)	100 ppm (480 mg/m ³)
ACGIH	Threshold Limiting Value (TLV)	10 ppm (240 mg/m ³)
NIOSH	Recommended Exposure Limit (REL)/(STEL)	50 ppm /100 ppm

Acetophenone	CAS # 98-86-2	
OSHA	Permissible Exposure Limit (PEL)	None Established
ACGIH	Threshold Limiting Value (TLV)	10 ppm (49 mg/m ³)
NIOSH	Recommended Exposure Limit (REL)	None Established

Engineering Controls: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposures below permissible exposure limits. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Occupational Exposure Controls: Ensure adequate ventilation, especially in confined areas. Consider all potential hazards of this material, applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting PPE. Ensure that eyewash stations and safety showers are proximal to the work location. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Protective and Hygiene measures: Do not inhale vapors. Wash hands before breaks and immediately after handling product. When using, do not eat, drink, or smoke. In case of clothes contamination, remove and wash contaminated clothing before re-use.

Eye Protection: Recommended to wear a face shield along with tight fitting, chemical splash when there is potential for the exposure of the eyes to the liquid, vapor or mist. Have a suitable eye wash station or bottle nearby in case of splashing into the eyes.

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Hand Protection: Recommended to wear chemical resistant gloves and discard of gloves that show tears, pinholes, or signs of wear. Consult glove manufacturers to determine appropriate glove materials for the given application.

Skin Protection: Recommended to wear chemical resistant clothing, such as a rubber apron and rubber boots, especially when splashing may occur. It is minimally recommended to wear long-sleeved clothing, pants and proper foot covering in order to prevent direct skin contact with the product. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Respiratory Protection: A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Various Colors Liquid

Odor: Aromatic

Odor Threshold: No data available

pH: > 5

Melting/freezing point: No data available

Initial boiling point: 127°F (53°C)

Boiling range: No data available

Flash point (Tag closed cup): 174°F (79°C)

Evaporation rate: No data available

Flammability: Lower Limit: 0.9% (V) **Upper Limit:** 6.5% (V)

Vapor pressure: No data available

Vapor density: > 1 (Air = 1)

Relative density: 1.05 g/cm³ (8.75 lb/gal) at 68°F (20°C)

Solubility in water: 1.6 g/l at 68°F (20°C)

Partition coefficient (n-octanol/water): No data available

Auto-ignition temperature: 410°F (210°C)

Decomposition temperature: 180°F (82°C) [Self-Accelerating Decomposition Temperature (SADT)]

Viscosity (dynamic): 13 cPs at 68°F (20°C)

10. STABILITY AND REACTIVITY

Reactivity: No decomposition if stored below published SADT and applied as directed.

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Chemical Stability: Chemically unstable and should only be used under specific conditions.

Possibility of Hazardous Reactions: Avoid exposure to temperatures above the published SADT as well as to incompatible materials. Product will not undergo hazardous polymerization.

Conditions to Avoid: Do not allow material to be stored above the Self-Accelerating Decomposition Temperature (SADT). This decomposition will generate flammable vapors which may auto-ignite. The length of time required for decomposition is dependent on how much the SADT has been exceeded as well as the length of time.

Incompatible Materials: Strong acids, Strong bases, Sulfur compounds, Reducing agents, Oxidizing agents, Heavy metals, Amines, Rust

Hazardous decomposition products: Toxic & Flammable Aromatic derivatives, Carbon monoxide, Carbon dioxide

11. TOXICOLOGICAL INFORMATION

Primary Routes of Exposure: Inhalation, Skin absorption, Eye contact, Ingestion

Symptoms Related to Physical, Chemical and Toxicological Characteristics: Metallic taste, stomach or intestinal irritation, nausea, vomiting, diarrhea, irritation of the nose, throat and airways, central nervous system depression, dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness, lack of coordination, confusion and liver damage

Delayed and Immediate Effects & Chronic Effects from Exposure: This substance causes severe skin burns and eye damage if exposed through skin or eye contact. This substance is harmful if inhaled and may result in headaches, nausea, dizziness, drowsiness, or unconsciousness. If swallowed, this substance may be harmful or fatal due to the entering of this substance into the lungs and causing serious lung damage. This substance may damage fertility or the health of the unborn child. This substance has not been classified as a potential carcinogen.

Measures of Toxicity:

Acute toxicities are calculated based on component toxicities

Mixture: **Acute Oral Toxicity:** LD₅₀ Rat: > 720 mg/kg

Acute Dermal Toxicity: LD₅₀ Rat: > 1,500 mg/kg

Acute Inhalation Toxicity: LC₅₀ Rat: 3.7 mg/l; 4 h*

* < 15% of this product consists of ingredients of unknown acute inhalation toxicity

Carcinogen Claims:

OSHA: No, International Agency for Research on Cancer (IARC): Yes, (Cumene, category 2B)

ACGIH: Yes Cumene A2), National Toxicology Program (NTP) Report on Carcinogens: Yes, Cumene, Reasonably Anticipated to be a Human Carcinogen.

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12. ECOLOGICAL INFORMATION

Eco-toxicity: This substance is toxic to aquatic organisms. It is strongly advised that this substance does not enter the environment.

Persistence & Degradability: Product is not readily biodegradable

Bio-accumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: No data available

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with Federal, State or Local regulations.
Contaminated packaging should be emptied as far as possible before disposal.

14. TRANSPORT INFORMATION

DOT SHIPPING CLASSIFICATION:

UN NUMBER: UN3109

PROPER SHIPPING NAME: Organic Peroxide, Type F, Liquid n.o.s. (Cumyl Hydroperoxide)

TRANSPORTATION HAZARD CLASS: 5.2

PACKING GROUP: II

HAZARD LABEL: 5.2

IMDG (Marine) SHIPPING CLASSIFICATION:

IMDG CODE: 5.2

UN NUMBER: UN3109

MARINE POLLUTANT: Yes

EmS: F-J; S-R

IMDG PACKING GROUP: II

HAZARD LABEL: 5.2

Description of the goods

ORGANIC PEROXIDE, TYPE F, LIQUID N.O.S. (CUMYL HYDROPEROXIDE)

IATA (Air) SHIPPING CLASSIFICATION:

ICAO/IATA-DGR: 5.2

UN NUMBER: UN3109

HAZARD LABEL: Organic Peroxide & Keep away from heat

IATA-packing instructions – Passenger: 570

IATA -max. quantity – Passenger: 10 L

IATA – packing instructions – Cargo: 570

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IATA –max. quantity – Cargo: 25 L

IAO packing group: II

Limited quantity Passenger: Forbidden

Description of the goods

Organic peroxide type F, liquid, n.o.s. (Cumyl Hydroperoxide)

15. REGULATORY INFORMATION

All components of this product conform to the following national inventory requirements. US TSCA, EU EINECS and Canada DSL

SARA Title III

Section 302 – Extremely Hazardous Chemicals

The following ingredients are subject to the supplier notification requirements of Section 302 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 37 *None Listed*

Section 313 – Toxic Chemicals

The following ingredients are subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 37

Component	CAS #	Weight %	CERCLA RQ
Cumene Hydroperoxide	80-15-9	60 – 83	10
Cumene	98-82-8	10 – 30	5,000
Acetophenone	98-86-2	1 – 5	5,000

OTHER FEDERAL REGULATIONS

Components of this product are subject to RCRA Hazardous Waste requirements.

Clean Air Act (CAA) Hazardous Air Pollutants requirements and OSHA Process Safety Management (PSM) high hazard requirements.

CANADIAN REGULATIONS

Same as OSHA GHS Standard

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STATE REGULATIONS

California Proposition 65

WARNING: This product contains cumene, a chemical known to the state of California to cause cancer.

The components of this product may be included on the various state hazardous materials lists noted below.

- California Hazardous Substances List/Permissible Exposure List
- California Toxic air contaminants
- Connecticut Permissible Exposure Limits
- Delaware List of Chemicals and RQs
- Hawaii Permissible Exposure Limits
- Idaho Toxic Air Pollutants
- Illinois Toxic Air Contaminants List
- Louisiana Toxic Air Pollutants
- Maine Hazardous Air Pollutants
- Maryland Toxic Air Pollutants for Existing Sources
- Massachusetts Hazardous Substances List
- Michigan Permissible Exposure Limits
- Minnesota Hazardous Substances
- Minnesota Permissible Exposure Limits
- Nebraska Hazardous Air Pollutants
- New Jersey RTK Hazardous Substances List/TCPA Extremely Hazardous Substances List
- New York List of Hazardous Substances
- North Carolina TAP Emissions Rates Requiring a Permit
- Ohio Toxic Air Contaminants
- Oklahoma Toxic Air Contaminants
- Pennsylvania Hazardous Substances List
- Rhode Island Toxic Air Contaminants
- Tennessee Permissible Exposure Limits
- Vermont Hazardous Air Contaminants/Permissible Exposure Limits
- Washington Permissible Exposure Limits for Airborne Contaminants.
- West Virginia Toxic Air Pollutant List
- Wisconsin hazardous Air Contaminants

Note: Entries under Section 15 are not intended to be all inclusive of Federal and State laws and regulations. Please consult the appropriate agencies for further clarification of any requirements.

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16. OTHER INFORMATION

Disclaimer: The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.