

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME:	FORMULA 3010
PRODUCT USE:	BIOCIDE
RESTRICTIONS ON USE:	Refer to label, available technical information, and other appropriate sections of this SDS.
UN NUMBER:	UN3109
PROPER SHIPPING NAME:	UN3109, ORGANIC PEROXIDE TYPE F, LIQUID (Peracetic Acid), 5.2 (8)
MANUFACTURER'S NAME:	Garratt-Callahan Company
ADDRESS:	50 Ingold Road, Burlingame, CA 94010-2206
EMERGENCY PHONE:	North America: CHEMTREC: 1-800-424-9300 Outside North America: +1-703-527-3887
BUSINESS PHONE:	Product Information: 650-697-5811
SDS NUMBER:	SD3010
DATE OF REVISION:	10/24/2024

SECTION 2 - HAZARDS IDENTIFICATION

SIGNAL WORD: DANGER!

HAZARD STATEMENT:

- H242: Heating may cause a fire. Type F
- H272: May intensify fire; oxidizer. Category 3
- H290: May be corrosive to metals. Category 1
- H302: Harmful if swallowed. Category 4
- H312: Harmful in contact with skin. Category 4
- H314: Causes severe skin burns and eye damage. Category 1B
- H402: Harmful to aquatic life. Category 3



PRECAUTIONARY STATEMENTS: (PREVENTION)

- P101: If medical advice is needed, have product container or label at hand.
- P102: Keep out of reach of children.
- P103: Read label before use.
- P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking.
- P220: Keep/Store away from clothing/combustible materials.
- P234: Keep only in original container.
- P235: Keep cool.
- P240: Ground/bond container and receiving equipment.
- P260: Do not breathe dust/fume/gas/mist/vapors/spray.
- P264: Wash all exposed skin/hair thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P273: Avoid release to the environment.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

HEALTH HAZARD (BLUE)	3	Hazard Scale 0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe *=Chronic hazard
FLAMMABILITY HAZARD (RED)	1	
PHYSICAL HAZARD (YELLOW)	1	
PERSONAL PROTECTION	D	

**NFPA RATING
FLAMMABILITY**



SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	CAS#	EC#	ICSC#	WT %
HYDROGEN PEROXIDE	7722-84-1	231-765-0	0164	21.5-22.5
ACETIC ACID	64-19-7	200-580-7	0075	15.8-16.6
PERACETIC ACID	79-21-0	201-186-8	1031	14.8-15.7

SECTION 4 - FIRST AID MEASURES

Exposed individuals must be taken for medical attention if any adverse effect occurs. Take a copy of this SDS to the health professional with the individual.

DANGER: Heating may cause a fire. May intensify fire; oxidizer. May be corrosive to metals. Harmful if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. Harmful to aquatic life. Also refer to Section 11 for symptoms, effects, and likely routes of exposure for this product.

TARGET ORGANS:

ACUTE: Skin, eyes, respiratory and gastrointestinal systems.

CHRONIC: Skin, eyes, respiratory and gastrointestinal systems.

SKIN EXPOSURE: P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Minimum flushing time is for 15 minutes. Remove exposed or contaminated clothing, taking care not to contaminate the eyes. P363: Wash contaminated clothing before reuse. P310: Immediately call a POISON CENTER or doctor/physician.

EYE EXPOSURE: P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Use sufficient force to open the eyelids. Have the exposed individual "roll" their eyes. Minimum flushing time is for 15 minutes. P310: Immediately call a POISON CENTER or doctor/physician.

INHALATION: P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Remove or cover gross contamination to avoid exposure to rescuers. P310: Immediately call a POISON CENTER or doctor/physician.

INGESTION: P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330: Rinse mouth. P331: Do NOT induce vomiting.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Skin and respiratory disorders, as well as conditions involving the "Target Organs" (see above) which may be aggravated by prolonged exposures to this product. Exposed individual must seek immediate medical attention if any adverse effect occurs.

NOTES TO PHYSICIAN: Treat symptoms as demonstrated by signs and distress in the patient.

SECTION 5 - FIRE FIGHTING MEASURES

SUITABLE (AND UNSUITABLE) EXTINGUISHING MATERIALS:

P370 + P378 : In case of fire: Use water spray, powder, foam, sand, and carbon dioxide for extinction. Do not use heavy water stream.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:

May give off irritating or toxic fumes(or gases) in a fire. May cause fire and explosions when in contact with incompatible materials.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS:

Use flooding quantities of water only. Use water spray to keep all containers cool. Fight fire from protected or removed distance. Chemical type extinguishers are not very effective. Use proper personal protective equipment and positive pressure self-contained breathing apparatus.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, ENVIRONMENTAL PRECAUTIONS AND EMERGENCY PROCEDURES.

WARNING: Any container expansion or rounding indicates pressure build-up. Use extreme caution. When opening, release pressure slowly through opening.

SPILL AND LEAK RESPONSE: Uncontrolled releases should be responded to by appropriately trained personnel using pre-planned procedures. Proper protective equipment should be used. Refer to Section 8 - exposure controls. P273: Avoid release into the environment. P390: Absorb spillage to prevent material-damage. P391: Collect spillage.

Small Spill: Mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill: Restrict access to the area. Provide adequate protective equipment and ventilation. Stop leak if without risk. Remove chemicals which can react with the spilled material. Add dry inert material to contain and absorb spilled material. Prevent entry into surface waters, sewers, basements or confined areas, dike if needed. Ensure that exposure to product is not at a concentration exceeding regulatory limits. Decontaminate the area thoroughly. Decontaminate all response equipment with soapy water before returning to service. Place all spill residue in a suitable container and seal.

SECTION 7 - HANDLING AND STORAGE

PRECAUTION FOR SAFE HANDLING: As with all chemicals, avoid getting this product ON YOU or IN YOU. Avoid direct or prolonged contact with skin or eyes. Do not ingest. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors, dusts or mists generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately. Refer to Section 8 for exposure controls. P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking. P220: Keep/Store away from clothing/combustible materials. P240: Ground/bond container and receiving equipment. P273: Avoid release to the environment.

CONDITION FOR SAFE STORAGE: All employees who handle this material should be trained to handle it safely. Open containers slowly on a stable surface. Containers of this product must be properly labeled. Storage areas of this product should be clearly identified, well-illuminated, clear of obstruction and accessible only to trained and authorized personnel. Store containers in a cool, dry location, away from direct sunlight, at temperatures between 50°F (10°C) - 100°F (37°C). Keep container tightly closed when not in use. P405: Store locked up. P403+P235: Store in a well ventilated place. Keep cool. P411: Store at temperatures not exceeding 37°C/100°F. P420: Store away from other materials. Refer to Section 10 for incompatibilities. P234: Keep only in original packaging. P406: Store in a corrosion resistant container with a resistant inner liner.

SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation. Eyewash/safety shower station is recommended to be available near where this product is used/stored.

EXPOSURE LIMITS/GUIDELINES:

EXPOSURE LIMITS IN AIR

<u>CHEMICAL NAME</u>	<u>CAS#</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	<u>OTHER</u>
		<u>TWA</u>	<u>STEL</u>	<u>TWA</u>	
HYDROGEN PEROXIDE	7722-84-1	1 ppm	NE	1 ppm (1.4 mg/m ³)	NIOSH TWA 1ppm (1.4 mg/m ³) IDLH = 75 ppm
ACETIC ACID	64-19-7	10 ppm	15 ppm	10 ppm (25 mg/m ³)	NE
PERACETIC ACID	79-21-0	NE	NE	NE	NE

NE = Not Established

INGESTION: P270: Do not eat, drink or smoke when using this product. P264: Wash all exposed skin/hair thoroughly after handling.

RESPIRATORY PROTECTION: P260: Do not breathe dust/fume/gas/mist/vapours/spray. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. Air-purifying respirators with dust/mist/fume/spray filters are recommended if operations may produce dusts, mists or sprays from this product.

EYE PROTECTION: P264: Wash all exposed skin/hair thoroughly after handling. P280: Wear protective gloves/protective clothing/eye protection/face protection. A face shield may also be necessary for splash protection.

SKIN PROTECTION: P264: Wash all exposed skin/hair thoroughly after handling. P280: Wear protective gloves/protective clothing/eye protection/face protection. Use chemically-resistant gloves and skin protection, when handling this product. Use body protection appropriate for task (e.g. lab coat, overalls).

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE and COLOR:	Clear colorless liquid	VAPOR PRESSURE, mm Hg @ 20°C:	27
ODOR :	Vinegar odor	VAPOR DENSITY (Air=1):	Not established
ODOR THRESHOLD:	Not established	RELATIVE DENSITY@20°C (water=1):	1.14 g/mL
pH:	<1 (10% solution)	SOLUBILITY IN WATER:	Complete
MELTING/FREEZING POINT:	<10°F	PARTITION COEFFICIENT(n-octanol/water):	
BOILING POINT:	Not established	AUTOIGNITION TEMPERATURE:	>518°F
FLASHPOINT:	>207°F	DECOMPOSITION TEMPERATURE:	Not established
EVAPORATION RATE (n-BuAc=1):	Not established	VISCOSITY:	10-20 cST @ 20°C
FLAMMABILITY (SOLID/GAS):	Nonflammable	VOLATILE ORGANIC COMPOUNDS (%):	Not established
FLAMMABLE LIMITS (in air by volume, %)	Not established		

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY: Reactive with bases, metals, reducing agents and combustible materials.

STABILITY: Stable for up to 1 year when stored under normal conditions.

POSSIBILITY OF HAZARDOUS

REACTIONS: May react with incompatible material.

CONDITIONS TO AVOID: Incompatible materials and high temperatures.

INCOMPATIBLE MATERIALS: Reactive with bases, metals, reducing agents and combustible materials.

HAZARDOUS DECOMPOSITION

PRODUCTS: Oxygen.

SECTION 11 - TOXICOLOGICAL INFORMATION

TOXICOLOGICAL EFFECTS: No data available for this product

LIKELY ROUTES OF EXPOSURE: Skin, eye contact, inhalation, and ingestion.

RELATED SYMPTOMS: Skin, eye, respiratory and gastrointestinal irritation. May be harmful if swallowed.

DELAYED/IMMEDIATE/CHRONIC EFFECTS FROM SHORT AND

LONG TERM EXPOSURES: Inhalation: Inhalation of the mist may produce severe irritation of respiratory tract, characterized by coughing, shortness of breath, headaches, dizziness, nausea, weakness and/or drowsiness.
Ingestion: Corrosive! Swallowing cause severe burns of mouth, throat, and stomach. Severe scarring of tissue, corrosion, permanent tissue destruction and death may result. Symptoms may include severe pain nausea, vomiting, diarrhea, shock, hemorrhaging and/or fall in blood pressure. Damage may appear days after exposure.
Skin: Corrosive! Contact with skin causes irritation or severe burns and scarring with greater exposures.
Eye: Corrosive! Causes irritation of eyes, and with greater exposures it can cause burns that may result in permanent impairment of vision, even blindness.

NUMERICAL MEASURES OF

TOXICITY: Hydrogen Peroxide: LD50 Oral (rat) 500 mg/kg
Acetic Acid: LD50 Oral (rat) 3310 mg/kg
LD50 Dermal (rabbit) 1060 ul/kg
Peracetic Acid: LD50 Dermal (rat) >12000 mg/kg
LD50 Oral (mouse) 210 mg/kg

CARCINOGENICITY: A component of this product, Hydrogen Peroxide (CAS# 7722-84-1), is listed under IARC as a Group 3 carcinogen. No other ingredients are listed by the NTP or OSHA as carcinogen.

SECTION 12 - ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ECOTOXICITY: LC50 (Daphnia magna) 0.76 ppm
LC50 (Rainbow trout) 0.68 ppm

PERSISTENCE AND DEGRADABILITY: Not expected to persist. Expected to readily biodegrade.

BIOLOGICAL ACCUMULATION POTENTIAL: Not expected to bio accumulate.

MOBILITY IN SOIL: No data available for this product.

OTHER ADVERSE EFFECTS (i.e., hazardous to the ozone layer): No data available for this product.

Environment Hazards:

This product is toxic to birds, fish and aquatic invertebrates. Caution must be used when applying indoors because pets may be at risk. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of the National Pollution Discharge System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage plant authority.

BIOLOGICAL EXPOSURE INDICES: Currently, Biological Exposure Indices (BEIs) have not been determined for the components of this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL: Rinse empty containers with water and use the rinse water to prepare the working solution. Refer to section 8 for exposure controls - personal protection. P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14 - TRANSPORTATION INFORMATION

PROPER SHIPPING NAME

DOT: UN3109, ORGANIC PEROXIDE TYPE F, LIQUID
(Peracetic Acid), 5.2 (8)
Emergency Response Guidebook Guide No.: 145
Passenger Aircraft Qty: 10L
Cargo Aircraft Qty: 25L

IMDG/IMO: UN3109, ORGANIC PEROXIDE TYPE F, LIQUID
(Peracetic Acid), 5.2 (8)

IATA/ICAO: UN3109, ORGANIC PEROXIDE TYPE F, LIQUID
(Peracetic Acid), 5.2 (8)

ENVIRONMENTAL HAZARDS

(i.e., MARINE POLLUTANT): None known.

TRANSPORT IN BULK (according to annex II marpol 73/78 and the IBC code): Not applicable.

SPECIAL PRECAUTIONS FOR USER: None known.

PRODUCT REQUIRES AN ORGANIC PEROXIDE AND CORROSIVE LABELS



SECTION 15 - REGULATORY INFORMATION

United States and International Regulations

United States Regulations: U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting as listed below, requirements of Sections 302, 304, and 313 of Title of the Superfund Amendments and Reauthorization Act:

CHEMICAL NAME

HYDROGEN PEROXIDE	SARA 302 (40 CFR 355, Appendix A) - NO SARA 304 (40 CFR Table 302.4) - NO SARA 313 (40 CFR 372) - NO
ACETIC ACID	SARA 302 (40 CFR 355, Appendix A) - NO SARA 304 (40 CFR Table 302.4) - NO SARA 313 (40 CFR 372.65) - NO
PERACETIC ACID	SARA 302 (40 CFR 355, Appendix A) - YES SARA 302.4 (40 CFR Table 355) - YES SARA 313 (40 CFR 370) - YES

U.S. Regulations

U.S. SARA THRESHOLD PLANNING QUANTITY: There are specific Threshold Planning Quantities for the components of this product. The Federal SDS submission and inventory requirement filing threshold of 10,000 lbs (4,450 kg) for Hazardous materials.

U.S. CERCLA REPORTABLE QUANTITY (RQ): ACETIC Acid: 5,000lb (2,270 kg)

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory.

SARA Title 311/312, Hazard Category: Acute Health: YES; Chronic: NO; Fire: YES; Reactive: YES; Sudden Release of Pressure: NO

FIFRA Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals.

DANGER. CORROSIVE. Do not enter an enclosed area without proper respiratory protection, or when uncoupling of product transfers hoses. Causes irreversible eye damage and skin burns. May be fatal if inhaled or absorbed through skin. Harmful if swallowed. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Wear goggles, face shield, rubber gloves and protective clothing with long sleeves when handling. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse.

PHYSICAL OR CHEMICAL HAZARDS:

CORROSIVE: Mix only with potable water below 140°F. Product must be diluted in accordance with label directions, prior to use. This product is not combustible: however, at temperatures exceeding 156°F. Decomposition occurs releasing oxygen. The oxygen released could initiate combustion.

California safe drinking water and toxic enforcement act (proposition 65): No component of this product is on the Proposition 65 List.

International Regulations

CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are on the DSL or NDSL Inventories or are exempt from listing.

CANADIAN WHMIS CLASSIFICATION: HYDROGEN PEROXIDE (CAS# 7722-84-1): C, D2B, E (Toxic) (Oxidizing). ACETIC ACID (CAS# 64-19-7): B3,E.

SECTION 16 - OTHER INFORMATION

PREPARED BY: GARRATT CALLAHAN

DATE OF REVISION: 10/24/2024 Supercedes: 05/07/2019

Formula 3010 is registered with the NSF to the Nationally Recognized Health Effects Standard (ANSI 60) for chemicals which are used to treat drinking water, with NSF DCC# DA07669.

Reverse Osmosis Membrane Biocide MUL: N/A

Drain and flush fluid until hydrogen peroxide and peracetic acid are <1 ppm. System must be offline and flushed, monitor pH.

Formula 3010 is EPA-registered; with EPA Reg. No. 63838-2-8540. Refer to the approved label for details.

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