

Safety Data Sheet

I PRODUCT IDENTIFICATION

Product Name **PROMOAT™**
Manufactured and Distributed By: Safe Foods Chemical Innovations
 1501 E. 8th Street
 North Little Rock, AR 72114
 (501) 758-8500
Synonyms none
Material Use Antimicrobial Agent

II HAZARD SUMMARY

GHS Class (Category)	<i>oxidizer (2)</i>	<i>acute oral (3)</i>	<i>acute skin (3)</i>	<i>acute inhal. (4)</i>	<i>skin corrosive (1)</i>	<i>aquatic, acute (1)</i>
Signal Words	DANGER	DANGER	DANGER	WARNING	DANGER	WARNING
Hazard Statements	<i>may intensify fire, oxidizer (H272)</i>	<i>toxic if swallowed (H301)</i>	<i>toxic in contact with skin (H311)</i>	<i>harmful if inhaled (H332)</i>	<i>causes severe skin burns & eye damage (H314)</i>	<i>very toxic to aquatic life (H400)</i>

GHS Precautionary Statements for Labelling

P262 Do not get in eyes, on skin or on clothing.
 P264 Wash thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear eye protection, protective gloves and clothing of butyl or "Viton".
 P273, P391 Avoid release to the environment. Collect spillage.
 P313 & P333 If skin irritation or rash occurs, get medical advice/attention.
 P304 & P340 If inhaled remove person to fresh air and keep comfortable for breathing.
 P305, P351, P338 If in eyes, rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.



III COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER	% (w/w)
Hydrogen Peroxide	7722-84-1	5-10
Acetic Acid	64-19-7	40-55
Peracetic Acid	79-21-0	15-20
1-Hydroxyethane-1,1-diphosphonic acid	2809-21-4	< 0.8
Water	7732-18-5	balance

IV FIRST AID

SKIN: Wash with plenty of water. Remove contaminated clothing and do not reuse until thoroughly laundered.
EYES: Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there is irritation.
INHALATION: Remove from contaminated area promptly. **CAUTION: Rescuer must not endanger himself!** If victim's breathing stops, administer artificial respiration and seek medical aid promptly

PLEASE ENSURE THAT THIS SDS IS GIVEN TO AND EXPLAINED TO PEOPLE USING THIS PRODUCT.

INGESTION: Give plenty of water to dilute product. Do not induce vomiting (*NOTE below*). Keep victim quiet. If vomiting occurs, lower victim’s head below the hips to prevent inhalation of vomited material. Seek medical help promptly.

NOTE: Corrosive substance: apply first aid immediately! Inadvertent inhalation of vomited material may seriously damage the lungs. This danger is greater than the risk of poisoning through absorption of this product. Only empty the stomach under medical supervision, after installing an airway to protect the lungs.

V FLAMMABILITY & FIREFIGHTING

Flash Point >82°C / 180°F
 Autoignition Temperature not known
 Flammable Limits not known
 Combustion Products carbon monoxide, nitrogen oxides, oxides of sulfur, oxides of phosphorous
 Firefighting Precautions as for materials sustaining fire; firefighters must wear SCBA
 Static Discharge cannot accumulate a static charge
 Suitable Extinguishing Media water spray, fog, carbon dioxide, foam
 Unsuitable Extinguishing Media Do not use heavy water stream. Use of heavy stream of water may spread fire

VI ACCIDENTAL RELEASE MEASURES

Leak Precaution dyke to control spillage and prevent environmental contamination
 Handling Spill ventilate contaminated area; recover free liquid with corrosion-resistant pumps; absorb residue on an inert sorbent, sweep, shovel & store in closed containers for disposal
NOTE: If spill is extensive, and ventilation is inadequate, consider wearing an air-supplied respirator.

VII STORAGE & HANDLING

Store and use in a cool environment, away from alkalis. Never cut, drill, weld or grind on or near this container, whether empty or full. *Always replace drum, pail or IBC cap prior to moving the container!*
 Avoid generating or breathing product vapor or mist. If vapor or mist form in use install adequate ventilation to control airborne titre to regulated limits (*Part VIII, below*). If dealing with a spill, & ventilation is impractical, wear a suitable respirator with an acid gas cartridge. **WARNING – corrosive material;** avoid all contact with skin & wash work clothes often. An eye bath & safety shower must be available near the workplace.

VIII EXPOSURE CONTROL & PERSONAL PROTECTION

	Acetic Acid (64-19-7)	Hydrogen Peroxide (7722-84-1)	Peracetic Acid (79-21-0)
USA ACGIH TLV	TWA: 10 ppm STEL: 15 ppm	TWA: 1ppm	STEL: 0.4 ppm
USA OSHA PEL	TWA: 25 mg/m ³ TWA: 10 ppm	TWA: 1.4 mg/m ³ TWA: 1 ppm	
USA NIOSH REL	TWA: 25 mg/m ³ TWA: 10 ppm STEL: 37 mg/m ³ STEL: 15 ppm	TWA: 1.4 mg/m ³ TWA: 1 ppm	
USA NIOSH IDLH	IDLH: 50 ppm	75 ppm	

Ventilation mechanical ventilation is required to control airborne concentrations to regulated limits; a respirator with acid gas cartridge should be available for escape purposes, in case of a spill or should ventilation fail (*always store respirator in airtight container [“Tupperware”] to maintain cartridge freshness*)

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Hands	nitrile or neoprene, gauntlet-style gloves – <i>always confirm suitability with supplier</i>
Eyes	safety glasses with side shields or chemical goggles & a face shield – <i>always protect eyes!</i>
Clothing	impermeable (hands, above) apron, boots, hat & long sleeves; <i>if splashing is possible consider wearing a one-piece impermeable overall with hood & a face shield</i>

IX PHYSICAL CHARACTERISTICS

Odor & Appearance	clear, colorless, mobile liquid with a strong acetic acid (vinegar) odor
Odor Threshold	0.05ppm
Vapor Pressure	approx. 20mmHg / 2.7kPa (20°C/ 68°F)
Evaporation Rate (<i>Butyl Acetate = 1</i>)	not known – <i>slightly slower than water</i>
Vapor Density (air = 1)	mixture – <i>all components, except water, are heavier than air</i>
Boiling Point	above 100°C / 212°F
Freezing Point	below -20°C / -4°F
Specific Gravity	1.110 to 1.140 (20/20°C)
Water Solubility	complete
Viscosity	not known – <i>thin mobile liquid</i>
pH	below (<) 1 – <i>strongly acidic</i>

X REACTIVITY

Dangerously Reactive With	reducing agents, metal salts, alkalis, <i>may ignite flammable substances and organic solvents</i>
Also Reactive With	corrodes ferrous and non-ferrous metals, zinc, aluminum
Stability	stable if not contaminated; will not polymerize
Decomposes in Presence of	heat, sunlight
Decomposition Products	acetic acid, steam, oxygen
Sensitive to Mechanical Impact	no

XI TOXICITY

i. EFFECTS OF ACUTE EXPOSURE

Skin Contact	corrosive to skin; will cause damage if not rinsed away promptly
Skin Absorption	slight; no toxic effects likely by this route
Eye Contact	liquid and vapor corrosive to eyes; will cause permanent damage if not rinsed promptly
Inhalation	severely irritating; may cause pulmonary edema which <i>may become life-threatening</i>
Ingestion	corrosive to mouth, throat & stomach; <i>damage to digestive tract may be severe & life-threatening</i> <i>Ingestion is not a route of industrial exposure.</i>
Calculated LD ₅₀ (oral)	39mg/kg (rat)
Calculated LD ₅₀ (skin)	818mg/kg (rabbit)
Calc. LC ₅₀ (inhalation)	470ppm (rat)

ii. EFFECTS OF CHRONIC EXPOSURE

General	prolonged or repeated exposure may cause skin cracking and dermatitis repeated absorption may damage liver and kidneys
Sensitizing	not a sensitizer
Carcinogen/Tumorigen	not known to be a tumorigen or a carcinogen in humans or animals
Reproductive Effect	no known effect on humans or animals
Mutagen	not known to be a mutagen or teratogen in humans or animals
Synergistic With	not known

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XII ENVIRONMENTAL INFORMATION

Bioaccumulation this product is not a bioaccumulator
 Biodegradation once diluted to below bacteriostatic concentration, all components biodegrade readily & rapidly
 Abiotic Degradation hydrolyses rapidly at pH 7-9; its estimated ½-life in water 1 day; at pH 4, 7 days
 Mobility in soil, water water soluble; moves rapidly in soil & water; rapid hydrolysis & biodegradation is likely to prevent soil & water contamination

Aquatic Toxicity
Acetic Acid:
 LC₅₀ (Fish, 96 hr) 75mg/liter (Lepomis macrochirus), 251mg/liter (Gambusia affinis, neutralized to pH6.9-8.7)
 88mg/litre (Pimephelas promelas), 410mg/liter (Leuciscus idus)
 LC₅₀ (Crustacea, 48hr) 6000mg/liter (Daphnia magna), 42mg/litre (Artemia salina)
 EC₁₀₀ (Algae, 96hr) 720mg/liter (Euglena gracilis), 63mg/litre (Chlamydomonas dysomos)
 LC₅₀ (Bacteria) 11mg/liter (Photobacterium phosphoreum)

Aquatic Toxicity
Hydrogen Peroxide:
 LC₅₀ (Fish, 96 hr) 16mg/liter (Pimephelas promelas), 37mg/litre (Ictalurus punctatus)
 LC₅₀ (Crustacea 48hr) 7.7mg/liter (Daphnia magna)
 EC₅₀ (Algæ, 72hr) 10mg/liter (Anabena species, 24hr), 2.5mg/liter (Chlorella vulgaris, 72hr), 27.5 – 43mg/liter (Scenedesmus quadricauda, 240hr) & others
 LC₅₀ (Bacteria) 30mg/liter (Escherichia coli, 2hr) & others

Aquatic Toxicity
Peracetic Acid:
 LC₅₀ (Fish, 96hr) 11mg/liter (Pleuronectes platessa), 1-2mg/litre (Oncorhynchus mykiss)
 EC₅₀ (Crustacea, 48hr) 0.5-1.1mg/liter (Daphnia magna)
 EC₅₀ (Algae) 0.18mg/liter (Selenastrum Capricornutum)
 EC₅₀ (Bacteria) 5.1mg/liter (activated sludge)

XIII DISPOSAL / CONTAINERS

Waste Disposal **do not flush to sewer;** may be incinerated in approved facility with flue gas monitoring and scrubbing, mix with a suitable flammable waste before incineration; may be landfilled if local regulations permit

Containers **Drums** should be reused. Recondition and pressure test by a licensed reconditioner prior to re-use.
Pails must be vented and thoroughly dried prior to crushing and recycling.
IBCs (intermediate bulk containers): polyethylene bottle must be pressure tested and recertified at 30 months. Replace at 60 months (5 years). Steel containers must be inspected, pressure tested and recertified every 5 years.
Warning: never cut, drill, weld or grind on or near this container, even if empty.

XIV TRANSPORTATION CLASSIFICATION

USA 49 CFR & Canada TDG
 Product Identification Number UN – 3109
 Shipping Name **organic peroxide type F, liquid (peroxyacetic acid, hydrogen peroxide)**
 Classification **Class 5.2 (8)**
Reportable Quantities: *acetic acid – 5000lbs*
Marine Pollution *not a marine pollutant*



EMERGENCY INFORMATION

In the U.S.A. Call **CHEMTREC** (800) 424-9300
In Canada Call **CANUTEC (collect)** (613) 996-6666

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XV REGULATIONS

Canada DSL	on inventory
U.S.A. TSCA	on inventory
Europe EINECS	on inventory

XVI OTHER INFORMATION

NFPA ratings (scale 0 – 4)	HMIS ratings (scale 0 – 4)
Health = 3	Health = 3
Fire = 1	Fire = 1
Instability = 1	Reactivity = 1
Special Hazard = Oxidizer, Corrosive	Personal Protection = X (Consult your supervisor or SOP for special handling instructions)

Date of Preparation **August 2016**

Date of Revision **October 2023**

Prepared for Safe Foods Chemical Innovations

Resources: [CHEMINFO](#) (Canadian Centre for Occupational Health & Safety), [Hazardous Substances Data Bank](#) (US National Library of Science), [IUCLID Datasheet](#) (European Union), [ESIS European Chemical Substances Information System](#) (European Union), [OSHA Database](#) (US Dept. of Labor)