SECTION 1: Identification

1.1. Identification

Product name : Promoat

1.2. Recommended use

Use of the substance/mixture : Antimicrobial Agent

1.3. Supplier

Safe Foods Chemical Innovations
1501 East 8th Street
North Little Rock, AR, 72114
T 501-758-8500

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Oxidising liquid, Category 2	May intensify fire; oxidizer.
Organic peroxides, Type D	Heating may cause a fire.
Corrosive to metals, Category 1	May be corrosive to metals.
Acute toxicity (oral), Category 4	Harmful if swallowed.
Acute toxicity (dermal), Category 4	Harmful in contact with skin.
Acute toxicity (inhalation: dust, mist), Category 3	Harmful if inhaled.
Skin corrosion/irritation, Category 1	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation, Category 1	Causes serious eye damage.
Hazardous to the aquatic environment — Acute Hazard, Category 1	Very toxic to aquatic life.

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger

Hazard statements (GHS US) : Heating may cause a fire
May intensify fire; oxidizer

		May be corrosive to metals Harmful if swallowed, in contact with skin or if inhaled Causes severe skin burns and eye damage Very toxic to aquatic life
Precautionary statements (GHS US)	:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep/Store away from clothing and other combustible materials Take any precaution to avoid mixing with combustibles Keep only in original packaging. Do not breathe dusts or mists. Wash hands, forearms and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection. If swallowed: rinse mouth. Do NOT induce vomiting. Call a poison center or doctor if you feel unwell. If on skin (or hair): Wash with plenty of water.Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor. In case of fire: Use appropriate media to extinguish. Absorb spillage to prevent material-damage. Collect spillage. Store locked up. Protect from sunlight. Store in a well-ventilated place. Store at temperatures not exceeding the recommended value. Store separately. Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

89.2% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
34.2% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/Information on ingredients

Name	Product identifier	%
Acetic acid	CAS-No.: 64-19-7	40 – 55
Peracetic Acid	CAS-No.: 79-21-0	15 – 20
Hydrogen peroxide	CAS-No.: 7722-84-1	5 – 10
1-Hydroxyethane-1,1-diphosphonic acid	CAS-No.: 2809-21-4	< 0.8
Water	CAS-No.: 7732-18-5	Balance

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.

First-aid measures after eye contact : Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : Harmful if inhaled.

Symptoms/effects after skin contact : Harmful in contact with skin. Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Harmful if swallowed. Burns.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	:	Heating may cause a fire. May intensify fire; oxidizer.
Explosion hazard	:	No direct explosion hazard.
Hazardous decomposition products in case of fire	:	Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	:	Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

6.1.1. For non-emergency personnel

Protective equipment	:	Wear recommended personal protective equipment.
Emergency procedures	:	Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin, eyes and clothing. Do not breathe dust/fume/gas/mist/vapors/spray.

6.1.2. For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	:	Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	:	Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
Methods for cleaning up	:	Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.

Storage conditions : Store away from other materials. Protect from sunlight. Keep only in original container. Keep cool. Store locked up. Store at temperatures not exceeding 86 °F.

Incompatible materials : Combustible materials.

Packaging materials : Store always product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Name	USA - ACGIH - Occupational Exposure Limit (OEL)	USA - OSHA - Permissible Exposure Limit (PEL)	USA - NIOSH - Recommended Exposure Limit (REL)
Hydrogen peroxide (7722-84-1)	-	TWA: 1.4 mg/m³ 1 ppm	-
Acetic acid (64-19-7)	TWA: 10 ppm STEL: 15 ppm	-	-

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:
Wear recommended personal protective equipment.

Hand protection:	Protective gloves
Eye protection:	Safety glasses
Skin and body protection:	Wear suitable protective clothing
Respiratory protection:	[In case of inadequate ventilation] wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Color	:	Colourless
Odor	:	Irritating/pungent odour Vinegar odour
Odor threshold	:	0.05 ppm
pH	:	< 1
Melting point	:	Not applicable
Freezing point	:	< -20 °C / -4 °F
Boiling point	:	> 100 °C / 212 °F
Flash point	:	> 82 °C / 180 °F
Relative evaporation rate (butyl acetate=1)	:	Not known – *slightly lower than water*
Flammability (solid, gas)	:	Heating may cause a fire.
Vapor pressure	:	Approx. 20mmHg / 2.7kPa (20°C / 68°F)
Relative vapor density at 20°C	:	No data available
Relative density	:	1.10 to 1.14 (20/20 °C)
Solubility	:	Completely soluble in water
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	not known – *thin mobile liquid*
Viscosity, dynamic	:	not known – *thin mobile liquid*
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other information

VOC Content	:	79 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Heating may cause a fire. May intensify fire; oxidizer.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Combustible materials.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Harmful in contact with skin.
Acute toxicity (inhalation) : Inhalation:dust,mist.

Name	LD50 Oral	LD50 Dermal	LC50 Inhalation	ATE (US)
Promoat	-	-	-	Oral: 1197.618 mg/kg body weight Dermal: 1100 mg/kg body weight Dust, mist: 2.946 mg/l/4h
Hydrogen peroxide (7722-84-1)	693.7 mg/kg, rat	3000 mg/kg, rabbit	2000 mg/m³, rat	Oral: 693.7 mg/kg body weight Dermal: 3000 mg/kg body weight Vapors: 2 mg/l/4h Dust, mist: 2 mg/l/4h
Acetic acid (64-19-7)	3310 mg/kg body weight, rat	-	11.4 mg/l, rat	Oral: 3310 mg/kg body weight Vapors: 11.4 mg/l/4h Dust, mist: 11.4 mg/l/4h
Peracetic acid (79-21-0)	-	-	-	Oral: 500 mg/kg body weight Dermal: 1100 mg/kg body weight Dust, mist: 1.5 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns.
Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Name	IARC Group	NTP Status	OSHA List(s)
Hydrogen peroxide (7722-84-1)	3 - Not classifiable	-	-

Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : No data available

Name	Viscosity, kinematic
Acetic acid (64-19-7)	1.02 mm²/s (25 °C, Calculated)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Name	Fish	Crustacea	Other Aquatic Organisms
Hydrogen peroxide (7722-84-1)	LC50 [1]: 16.4 mg/l	-	EC50 72h Algae [1]: 1.38 mg/l LOEC (chronic): 1.25 mg/l NOEC (chronic): 0.63 mg/l
Acetic acid (64-19-7)	LC50 [1]: > 1000 mg/l	EC50 [1]: > 1000 mg/l	ErC50 Algae: > 1000 mg/l

12.2. Persistence and degradability

Name	Persistence and degradability
Promoat	Not rapidly degradable
Hydrogen peroxide (7722-84-1)	Not rapidly degradable
Acetic acid (64-19-7)	Readily biodegradable in the soil, Readily biodegradable in water.
Peracetic acid . . . % (79-21-0)	Not rapidly degradable

12.3. Bioaccumulative potential

Name	Bioaccumulative Potential
Hydrogen peroxide (7722-84-1)	No additional information available

Name	Bioaccumulative Potential
Acetic acid (64-19-7)	Not bioaccumulative.

12.4. Mobility in soil

Name	Soil Ecology
Acetic acid (64-19-7)	Highly mobile in soil. May be harmful to plant growth, blooming and fruit formation.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste Disposal : do not flush to sewer; may be incinerated in approved facility with flue gas monitoring & 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.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
UN3109	UN3109	3109	3109
14.2. Proper Shipping Name			
Organic peroxide type F, liquid (Peracetic Acid; Hydrogen Peroxide)	ORGANIC PEROXIDE TYPE F, LIQUID (Peracetic Acid; Hydrogen Peroxide)	ORGANIC PEROXIDE TYPE F, LIQUID (Peracetic Acid; Hydrogen Peroxide)	Organic peroxide type F, liquid (Peracetic Acid; Hydrogen Peroxide)
14.3. Transport hazard class(es)			
5.2 (8)	5.2 (8)	5.2 (8)	5.2 (8)

DOT	TDG	IMDG	IATA
			
14.4. Packing group			
II	II	II	Not applicable
14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
No supplementary information available			

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Hydrogen peroxide	7722-84-1	Present	Active	
Acetic acid	64-19-7	Present	Active	
Peracetic acid	79-21-0	Present	Active	

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.		
Peracetic acid	CAS-No. 79-21-0	15 – 20%

Acetic acid (64-19-7)	
CERCLA RQ	5000 lb

Peracetic acid (79-21-0)	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	500 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb

15.2. International regulations

Name	Inventory
Hydrogen peroxide (7722-84-1)	Listed on the Canadian DSL (Domestic Substances List) Listed on INSQ (Mexican National Inventory of Chemical Substances)
Acetic acid (64-19-7)	Listed on the Canadian DSL (Domestic Substances List) Listed on INSQ (Mexican National Inventory of Chemical Substances)
Peracetic acid (79-21-0)	Listed on the Canadian DSL (Domestic Substances List) Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

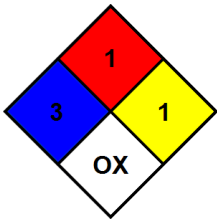
California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Version : 2.0
Issue date : 8/2016
Revision date : 2/26/2026
Supersedes : 4/9/2025

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.
NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.
NFPA reactivity : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.
NFPA specific hazard : OX - Materials that posses oxidizing properties.



Hazard Rating
Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
Physical : 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.
Personal protection : X - Special handling directions

Safety Data Sheet (SDS), USA - SFCI

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.