SAFETY DATA SHEET

Revision Date 30-Nov-2023 **Version** 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name **KC-619 PROPERA**

Other means of identification

Product Code 30619

Recommended use of the chemical and restrictions on use

Recommended Use Sanitizer

Uses advised against Follow the directions for use on the label when applying this product.

Details of the supplier of the safety data sheet

Manufacturer Address

Safe Foods Chemical Innovations
1501 E. 8th Street
North Little Rock, AR 72114

Emergency telephone number

Company Phone Number 501-758-8500

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable Liquids	Category 4
Oxidizing Liquids	Category 2
Corrosive to Metals	Category 1
Acute toxicity - Oral	Category 4
Skin corrosion	Category 1A
Serious eye damage	Category 1
Specific Target Organ Toxicity (Single exposure) (Respiratory tract irritation)	Category 3

Label elements

Emergency Overview

DANGER

Hazard statements

Combustible liquid.
May intensify fire, oxidizer.
May be corrosive to metals.
Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause respiratory irritation.

Physical state Liquid **Color** Colorless aqueous solution **Odor** Pungent, Vinegar Odor

Precautionary Statements – Prevention

Keep out of reach of children.
Wear protective gloves, protective clothing, and eye or face protection.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
Keep away from clothing and other combustible materials.
Take any precaution to avoid mixing with combustibles.
Keep only in original packaging.
Use only in a well-ventilated area.
Avoid breathing vapor.
Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.

Precautionary Statements – Response
Absorb spillage to prevent material damage.
IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.
Precautionary Statements – Storage
Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Precautionary Statements – Disposal
Dispose of contents and container in a waste disposal facility, in accordance with all local, regional, and national regulations.
Hazards not otherwise classified (HNOC)
None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	weight-%
Hydrogen Peroxide	7722-84-1	15-30
Acetic Acid	64-19-7	5-10
Peroxyacetic Acid	79-21-0	5-10
Nitric Acid	7697-37-2	5-10
Sulfuric Acid	7664-93-9	1-5
Water	7732-18-5	Balance

*The exact percentage (concentration) of composition has been withheld as a trade secret.
There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. FIRST AID MEASURES

First aid measures
General advice Get medical attention immediately.
Eye contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
Skin contact Rinse immediately contaminated clothing and skin with plenty of water. Wash contaminated skin with soap and water. Continue to rinse for at least 10 minutes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Chemical burns must be treated promptly by a physician.
Inhalation Remove person to fresh air and keep comfortable for breathing. Maintain an open airway. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If necessary, call a poison center or physician.
Ingestion Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel.
Most important symptoms and effects, both acute and delayed
Symptoms See section 11 for symptom information.
Indication of any immediate medical attention and special treatment needed
Note to physicians In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use dry chemical, CO2, water spray (fog) or foam.
Unsuitable extinguishing media Do not use water jet.
Specific hazards arising from the chemical
Combustible liquid. Runoff to sewer may create fire or explosion hazard. Oxidizing material. Organic peroxide material that is thermally stable or desensitized. This material increases the risk of fire and may aid combustion. May intensify fire. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
Hazardous thermal decomposition products Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides.
Protective equipment and precautions for firefighters
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or spray. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental precautions

Environmental precautions Do not allow contact with soil, surface or ground water.

Methods and material for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Do not absorb in sawdust or other combustible material. It may lead to a fire risk when it dries out. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Put on appropriate personal protective equipment. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or spray. Wash hands thoroughly after handling. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Keep away from clothing, incompatible materials and combustible materials. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage. Manipulate with care, avoid splashes.

Conditions for safe storage, including any incompatibilities

Storage Conditions Do not store above the following temperature: 30°C (86°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in a corrosion resistant container with a resistant inner liner. Store locked up. Eliminate all ignition sources. Separate from alkalis. Separate from oxidizing materials. Separate from reducing agents and combustible materials. Store away from grease and oil. Keep away from metals. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrogen Peroxide 7722-84-1	TWA: 1 ppm, 1.4 mg/m^3 (8 hrs)	-	-
Acetic Acid 64-19-7	TWA: 10 ppm, 25 mg/m^3 CEIL: 15 ppm, 37 mg/m^3 STEL: 15 ppm, 37 mg/m^3 (15 mins)	TWA: 10 ppm, 25 mg/m^3 (8 hrs)	STEL: 15 ppm, 37 mg/m^3 (15 mins) TWA: 10 ppm, 25 mg/m^3 (10 hrs)
Peracetic Acid 79-21-0	STEL: 0.4 ppm, 1.24 mg/m^3	-	-
Nitric Acid 7697-37-2	STEL: 4 ppm CEIL: 10 mg/m^3	TWA: 5.2 mg/m^3	TWA: 2 ppm
Sulfuric Acid 7664-93-9	TWA: 0.2 mg/m^3	TWA: 0.1 mg/m^3	-

Appropriate engineering controls

Engineering Controls Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. Use with adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear eye protection against chemical splashes.
Hand protection	Wear chemical-resistant, impervious gloves.
Skin and body protection	Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing such as a synthetic apron. Wear appropriate protective clothing to prevent skin contact.
Respiratory protection	Wear appropriate respirator when ventilation is inadequate. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
General Hygiene Considerations	Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	Aqueous solution	**Odor**	Pungent Vinegar Odor
Color	Colorless	**Odor threshold**	No information available.

Property	**Values**	**Remarks • Method**
pH	0.7 to 1.3	
Melting point / freezing point	-49 °C / -56.2 °F	
Boiling point / boiling range	No information available.	
Flash point	85 °C / 185 °F	Closed cup. [Product does not sustain combustion.]
Evaporation rate	> 1.0	(butyl acetate = 1)
Flammability (solid, gas)	No information available.	
Flammability Limit in Air		
Upper flammability limit:	No information available.	
Lower flammability limit:	No information available.	
Vapor pressure	No information available.	
Vapor density	No information available.	
Specific Gravity	1.16 to 1.17	
Water solubility	Miscible in water.	
Solubility in other solvents		
Partition coefficient	The product is much more soluble in water	n-octanol/water
Autoignition temperature	No information available.	
Decomposition temperature	No information available.	
Kinematic viscosity	4.5 mm^2/s (4.5 cSt)	
Dynamic viscosity	No information available.	
Explosive properties	No information available.	
Oxidizing properties	No information available.	
VOC Content (%)	No information available.	

10. STABILITY AND REACTIVITY

Reactivity

This product, in laboratory testing, neither detonates in the cavitated state nor deflagrates and shows no effect when heated under confinement nor any explosive power, provided that it is thermally stable or desensitized.

Chemical stability

The product may not be stable under certain conditions of storage or use.

Possibility of Hazardous Reactions

Hazardous reactions or instability may occur under certain conditions of storage or use.
Conditions may include the following: contact with combustible materials.
Reactions may include the following: risk of causing or intensifying fire.

Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Drying on clothing or other combustible materials may cause fire. Keep away from heat and direct sunlight.

Incompatible materials

Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Reactive or incompatible with the following materials: alkalis oxidizing materials combustible materials reducing materials copper iron rust metals.

Hazardous Decomposition Products

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

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Likely routes of exposure Dermal contact. Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects

Eye Contact Causes serious eye damage.

Skin Contact Causes severe burns.

Inhalation May cause respiratory irritation. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

Ingestion May cause burns to mouth, throat, and stomach. Harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrogen Peroxide 7722-84-1	1193 mg/kg (Rat)	>2000 mg/kg (Rabbit)	-
Acetic Acid 64-19-7	4960 mg/kg (Mouse) 3310 mg/kg (Rat)	1060 mg/kg (Rat)	-
Nitric Acid 7697-37-2	-	-	130 mg/m^3 (Rat)

Potentials symptoms related to the physical, chemical, and toxicological characteristics

Eye contact Pain, watering, redness.

Skin contact Pain or irritation, redness, blistering my occur.

Inhalation Adverse symptoms may include the following: respiratory tract irritation, coughing.

Ingestion Stomach pains.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No known significant effects or critical hazards.

Germ cell mutagenicity No known significant effects or critical hazards.

Carcinogenicity Chronic exposure to mists containing sulfuric acid is a cancer hazard.

Reproductive toxicity No known significant effects or critical hazards.

STOT - single exposure No data available.

STOT - repeated exposure No data available.

Aspiration hazard No data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

This material is toxic to aquatic life.

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Hydrogen Peroxide 7722-84-1	0.63 mg/L : 72 h Acute NOEC	16.4 mg/L : 96 h Acute LC50	2.4 mg/L : 48 h Daphnia Acute EC50
Acetic Acid 64-19-7	-	75 to 79 mg/L : 96 h Acute LC50	65 mg/L : 48 h Daphnia Acute EC50

Persistence and degradability

Not applicable due to rapid degradation of peracetic acid and hydrogen peroxide in the environment.

Bioaccumulation

This product is not bioaccumuable.

Mobility

No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste handling and disposal

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any byproducts should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION

DOT

UN/ID No. UN 3098

Proper shipping name Oxidizing liquid, corrosive, n.o.s (peroxyacetic acid, hydrogen peroxide)

Hazard Class 5.1

Subsidiary Class 8

Packing Group II

Marine Pollutant	Yes – Peracetic Acid
Additional information	This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a. Limited quantity in 1L or less.

15. REGULATORY INFORMATION

International Inventories

TSCA	All components are listed, exempted, or notified.
DSL/NDSL	All components of this product are on the Canadian DSL.
AICS	On the inventory, or in compliance with the inventory.
New Zealand – Inventory of Chemical Substances	On the inventory, or in compliance with the inventory.
Japan – ENCS	On the inventory, or in compliance with the inventory.
Japan – ISHL	On the inventory, or in compliance with the inventory.
KECI	On the inventory, or in compliance with the inventory.
PICCS	On the inventory, or in compliance with the inventory.
IECSC	On the inventory, or in compliance with the inventory.

Legend

TSCA – United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL – Canadian Domestic Substances List/Non-Domestic Substances List
AICS – Australia Inventory of Chemical Substances
ENCS – Existing and New Chemical Substances Inventory
ISHL – Inventory of Chemical Substances
KECI – Korean Existing Chemicals Inventory
PICCS – Philippines Inventory of Chemicals and Chemical Substances
IECSC – Inventory of Existing Chemical Substances in China

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 – Threshold Values %
Peroxyacetic acid 79-21-0	5.3 %

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Hydrogen Peroxide 7722-84-1	-	1000 lb	-
Acetic Acid 64-19-7	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
Peroxyacetic Acid 79-21-0	-	500 lb	-
Nitric Acid 7697-37-2	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ
Sulfuric Acid 7664-93-9	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations

California Proposition 65

WARNING! This product can expose you to chemicals which is [are] known to the State of California to cause cancer. For more information go to www.p65warnings.ca.gov.

Chemical Name	California Proposition 65
Sulfuric Acid 7664-93-9	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Hydrogen Peroxide 7722-84-1	X	X	X
Acetic Acid	X	X	X

64-19-7			
Peroxyacetic Acid 79-21-0	X	X	X
Nitric Acid 7697-37-2	X	X	X
Sulfuric Acid 7664-93-9	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number 91628-1

16. OTHER INFORMATION

NFPA	**Health hazards** 3	**Flammability** 2	**Instability** 1		**Physical and Chemical Properties** OX - Oxidizer
HMIS	**Health hazards** 3	**Flammability** 2		**Physical hazards** 2	**Personal protection** D (face shield, gloves, synthetic apron)

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Version 2
Revision Note Updated sections 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, and 16.

Disclaimer

The information provided in this 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 health hazards given on this SDS apply to this product in its concentrated form (as supplied) and may differ significantly at use dilution. The signs and symptoms of exposure apply only to negligence in handling or misuse of the concentrated product and not to the routine exposure of the diluted product under conditions of ordinary use.

End of Safety Data Sheet