Safety Data Sheet
GC Liquid Oxidizer Treatment

SECTION 1: Identification

1.1 GHS Product identifier

Product name	GC Liquid Oxidizer Treatment

1.2 Recommended use Oxidizer

1.3 Supplier's details

Name	BioSafe Systems
Address	22 Meadow Street East Hartford CT 06108 USA
Telephone	1.888.273.3088

1.4 Emergency phone number CHEMTREC: 1-800-424-9300

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200, 2024)

- Acute toxicity, inhalation, Cat. 4
- Acute toxicity, oral, Cat. 4
- Eye damage/irritation, Cat. 1
- Skin corrosion/irritation, Cat. 1A
- Corrosive to metals, Cat. 1
- Organic peroxides, Type F

2.2 GHS label elements, including precautionary statements

Pictograms

Signal word **Danger**

Hazard statement(s)

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H332	Harmful if inhaled
H290	May be corrosive to metals
H242	Heating may cause a fire

Precautionary statement(s)

P101	If medical advice is needed, have label at hand.
P102	Keep out of reach of children
P103	Read label before use.

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220	Keep away from clothing and other combustible materials.
P234	Keep only in original packaging.
P260	Do not breathe fumes, mist, vapors, or spray.
P262	Do not get in eyes, on skin or on clothing.
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.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
P301+P312	If swallowed: Call a poison center or doctor if you feel unwell.
P301+P330+P331	If swallowed: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340	If inhaled: Remove person to fresh air and keep 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.
P312	If inhaled: Call a poison center or doctor if you feel unwell.
P321	Specific treatment see first aid section on product label.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use water to extinguish.
P390	Absorb spillage to prevent material damage.
P405	Store locked up.
P406	Store in a corrosive resistant container with a resistant inner liner.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P411+P235	Store at temperatures not exceeding 77°F (25°C). Keep cool.
P420	Store separately.
P501	Dispose of contents according to local, state and/or federal regulations.

SECTION 3: Composition/information on ingredients

3.1 Mixtures

Component	Concentration
Peracetic acid (CAS no.: 79-21-0)	**10 - 20 % (weight)**
Hydrogen peroxide (CAS no.: 7722-84-1)	**20 - 30 % (weight)**
Acetic acid (CAS no.: 64-19-7)	**10 - 15 % (weight)**

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell. Acute and delayed symptoms and effects: May cause respiratory irritation. Signs/symptoms may include burning pain in the nose and throat, coughing, wheezing, or shortness of breath.
In case of skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower for at least 15 minutes. Call a poison center or doctor if irritation develops or persists. Wash contaminated clothing before reuse. Acute and delayed symptoms and effects: Causes severe skin burns. Signs/symptoms may include localized redness, swelling, itching, intense pain, or blistering.

In case of eye contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor. Acute and delayed symptoms and effects: Causes serious eye damage. Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, or significantly impaired vision.
If swallowed	Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Never give anything by mouth to an unconscious person. Acute and delayed symptoms and effects: Harmful if swallowed. Causes burns to nose, mouth, throat, and digestive tract. Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, or vomiting.

4.2 Most important symptoms/effects, acute and delayed
Symptoms/effects after inhalation: May cause respiratory irritation.
Symptoms/effects after skin contact: Burns.
Symptoms/effects after eye contact: Serious damage to eyes.
Symptoms/effects after ingestion: Burns.

4.3 Indication of immediate medical attention and special treatment needed, if necessary
Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media
Use water spray.

5.2 Specific hazards arising from the chemical
Fire hazard: Heating may cause a fire.
Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3 Special protective actions for fire-fighters
Do not attempt to take action without suitable protective equipment. Avoid any skin contact. Effects of contact or inhalation may be delayed. Fire may produce irritating, corrosive and/or toxic gases. Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection if necessary. Avoid breathing gas, mist, vapors, or spray. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2 Environmental precautions
Do not let product enter drains and avoid released to the environment.

6.3 Methods and materials for containment and cleaning up
Stop leak if you can do it without risk. Contain spillage, and then collect with inert absorbent material, (e.g. sand, diatomaceous earth) and place in non-metal container for disposal according to local, state, and federal regulations

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Do not swallow. Do not breathe mist, vapors, or spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Keep away from heat and sources of ignition. See Section 8 for information on Personal Protective Equipment.

7.2 Conditions for safe storage, including any incompatibilities

Store locked up and in original container only. Keep container in a dry and well-ventilated place. Keep cool and protect from sunlight. Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children. This product should be used within 12 months of the date of manufacture.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

CAS: 64-19-7 Acetic Acid

NIOSH (US): 10 ppm, (ST) 15 ppm REL inhalation; 15 ppm, 37 mg/m3 ST inhalation; 10 ppm, 25 mg/m3 TWA inhalation; US/OSHA (US): 10 ppm PEL inhalation; 25 mg/m3 PEL inhalation

CAS: 7722-84-1 Hydrogen Peroxide

Cal/OSHA (US): 1 ppm PEL inhalation; NIOSH (US): 1 ppm REL inhalation; US/OSHA (US): 1 ppm PEL inhalation; 1.4 mg/m3 PEL inhalation

8.2 Appropriate engineering controls

Use ventilation adequate to keep exposures below recommended exposure limits.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms

Eye/face protection

Tightly fitting safety goggles. If splash hazard, wear face shield.

Skin protection

Protective gloves rubber/latex/neoprene. Do not use leather or cotton gloves

Body protection

Wear protective clothing. Clothing with full length sleeves and pants should be worn. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

SECTION 9: Physical and chemical properties

Physical state	Liquid
Appearance	Clear, colorless liquid
Color	Colorless
Odor	Pungent, Vinegar like
Odor threshold	No data available.
Melting point/freezing point	-30 °C (-22°F)
Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	> 55 °C SADT (131°F)
pH	<1.5

Kinematic viscosity	No data available.
Solubility	Complete
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	22 mm Hg (25°C)
Evaporation rate	No data available.
Density and/or relative density	9.72 lbs/gal
Relative vapor density	No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity
Contact with incompatible materials. Sources of ignition. Exposure to heat.

10.2 Chemical stability
Stable under normal storage conditions.

10.3 Possibility of hazardous reactions
No data available.

10.4 Conditions to avoid
Incompatible products. High temperatures. Direct sunlight. Keep away from open flames, hot surfaces and sources of ignition.

10.5 Incompatible materials
Hydrogen peroxide: Zinc, Powdered metals, Iron, Copper, Nickel, Brass, Iron and iron salts.
Acetic acid: Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium permanganate, Amines, Alcohols, Nitric acid

10.6 Hazardous decomposition products
Thermal decomposition generates corrosive vapors, acetic acid and oxygen which supports combustion.

SECTION 11: Toxicological information

Acute toxicity
Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion.
Inhalation: May cause respiratory irritation.
Ingestion: Causes burns to nose, mouth, throat, and digestive tract.

Acetic acid LD50 Oral - Rat - 3,310 mg/kg LC50 Inhalation - Mouse - 5620 ppm - 1 h
LC50 Inhalation - Rat - 11.4 mg/l - 4 h LD50 Skin - Rat - 1,112 mg/kg

Skin corrosion/irritation
Causes severe skin burns. Signs/symptoms may include localized redness, swelling, itching, intense pain, or blistering.

Serious eye damage/irritation
Causes serious eye damage. Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, or significantly impaired vision.

Respiratory or skin sensitization
May cause respiratory tract irritation.

Germ cell mutagenicity
No data available.

Carcinogenicity
No data available.

Reproductive toxicity
No data available.

Specific target organ toxicity (STOT) - single exposure
No data available.

Specific target organ toxicity (STOT) - repeated exposure
No data available.

Aspiration hazard
No data available.

SECTION 12: Ecological information

Toxicity
Acetic acid
LC50 - Oncorhynchus mykiss (rainbow trout) - >1,000 mg/l - 96 h
EC50 - Daphnia magna (water flea) - >300.82 mg/l - 48 h

Persistence and degradability
Peracetic acid is completely miscible with water. Product is biodegradable due to chemical properties.

Bioaccumulative potential
Does not bioaccumulate.

Mobility in soil
Non-significant adsorption soil degradation, >99% in 20 minutes.

SECTION 13: Disposal considerations

Product disposal
Disposal should be in accordance with applicable Federal, State and local laws and regulations. Local regulations may be more stringent than State or Federal requirements.

Packaging disposal
Dispose of as unused product. Do not reuse containers.

SECTION 14: Transport information

DOT (US)
UN Number: UN3109
Class: 5.2
Packing Group: N/A
Proper Shipping Name: Organic peroxide type F, liquid (Peroxyacetic acid)

IMDG
UN Number: UN3109
Class: 5.2
Packing Group: N/A
Proper Shipping Name: Organic peroxide type F, liquid (Peroxyacetic acid)

IATA
UN Number: UN3109
Class: 5.2
Packing Group: N/A
Proper Shipping Name: Organic peroxide type F, liquid (Peroxyacetic acid)

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SARA 302 Components
The following components are subject to reporting levels established by SARA Title III, Section 302:
Hydrogen peroxide

SARA 311/312 Hazards
Reactivity Hazard, Acute Health Hazard, Chronic Health Hazard for: Hydrogen peroxide.
Fire Hazard, Acute Health Hazard, Chronic Health Hazard for: Acetic acid.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US EPA TSCA public inventory
Chemical name: PERACETIC ACID
CAS number: 79-21-0
Chemical name: Hydrogen peroxide
CAS number: 7722-84-1
Chemical name: Acetic acid
CAS number: 64-19-7

SECTION 16: Other information

16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall BioSafe Systems be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if BioSafe Systems has been advised of the possibility of such damages.