SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name: Peracetic Acid 5% Solution

CAS number: 79-21-0

Synonyms: Peroxyacetic acid, Ethaneperoxoic acid, Estosteril, Acetic peroxide, Perc

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Disinfectant for professional users

1.3 Details of the supplier of the safety data sheet

Company: Lab Alley, LLC
12501 Pauls Valley Road
Austin, Texas 78737
U.S.A.

Telephone: 512-668-9918
Fax: 512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Organic peroxides	Type G
Corrosive to metal	Category 1
Acute toxicity (Oral)	Category 4
Acute toxicity (Dermal)	Category 4
Acute toxicity (Inhalation - dust and mist)	Category 4
Skin Corrosion/Irritation	Category 3
Serious Eye Damage/Eye Irritation	Category 1
Specific Target Organ Toxicity - Single Exposure	Category 3 (Respitatory tract irritation.)

2.2 GHS Label elements, including precautionary statements

Pictogram 

Signal Word Danger

Hazard statements
May be corrosive to metals.
Harmful if swallowed, in contact with skin or if inhaled.
Causes severe skin burn and eye damage.
May cause respiratory irritation.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention: Keep only in origianl packaging. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Use personal protective equipment as required. Avoid release to the environment.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rince cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off all contaminated clothing immediately. Rinse skin with water [or shower]. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting. Immediately calll a POISON CENTER/doctor. Wash contaminated clothing before resude. Absorb spillage to prevent material damage. Collect spillage.

Storage: Store in corrosive resistnat container with a resistant inner liner. Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with appilcable laws and regulation, and product characteristics at time of disposal.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Peracetic acid	PAA, Estosteril	79-21-0	4.5 - 5.4%
Hydrogen peroxide	oxydol, perhydrol	7722-84-1	>=25 - <30%
Acetic acid	ethanoic acid, ethylic acid, vinegar acid	64-19-7	>=7 - <13%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled Potential for exposure by inhalation if aerosols or mists are generated. Bring affected person outside and snrue that he/she is comfortable. Get medical attention if any discomfort continues. With labored breathing: Provide with oxygen. Consult a doctor immediately. If the casualty is not breathing: Perform mouth-to-mouth resusciation, notify emergecny physician immediately.

In case of skin contact Immediately remove contaminated clothing. Wash off affected area immediately with plenty of water for at least 15 minutes. Get medical attention immediately.

In case of eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

If swallowed Do NOT induce vomiting. Rinse mouth. Immediately give large quanties of water to drink. Do not administer activated charcoal. Get medical attention immediately.

Personal protection for First-aid Responders: First Aid responders should pay attention to self-protection and use the recommended protective clothing. Avoid inhalation, ingestion and contact wit skin and eyes.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye damage. Eyes: Depending on the intensity of exporsure irritating/crrosive liquids cause injuries, destruction and detachment of connective tissue and corneal epithelium, corneal opacity, edemas and ulceration to a variable dgree. Danger! Possible loss of eyesight! Causes skin burns. Causes respiratory tract burns. An irritation of the muscous membrances may develop and lead to coughin after inhalation. There is a risk of pulmonary edema! Aspitation hazard due to foam formation. Release of oxygen with potential gas embolism. After accidental absorption in the body, the pathology and clinical findings are dependent on the kinetics of the noxious substance (quantity of absorbed substance, the absorption time, and the effectiveness of early elimination measure (first aid/excretion - metabolism. Health injuries may be delayed. Causes skin burns. Causes serious eye damage. Causes respiratory tract burns.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media High volume water jet. Organic compounds.

5.2 Specific hazards arising from the substance or mixture

Fire or high temperatures may cause decomposition. Release of oxygen may support combustion. Risk or overpressure and burst due to decomposition in confined spaces and pipes. During fire, gases hazardous to health may be formed. Vapors are heavier than air and may spread along floors. In case of major fries: hazard of conflgration, explosions and shooting flames.

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Evacuate personnel to safe areas. Remove sources of ignition. Prior to approachig the source of fire confirm that the containers are undamaged and not in a state of beginning decay,e.g. by using a thermal imaging camera. In case of fire, remove the endangered containers and bring to a safe place, if this can be done safely. In the case of fire, cool the containers that are at risk with water or dilute with water (flooding). Pay attention to flashback. In case of major fires: Due to the hazard of conflagration, explosions and shooting flames fire fighting must proceed from a safe distance and taking good cover. Expect spontaneous decomposition at all times. In case of major first: Try to cool down containers below the decomposition temparture. In case of major fires: Under certain circumstances prefer controlled combustion to fire extinguishing. Ensure there are sufficient retaining facilities for water used to extinguish fire. Water used to extinguish fire should not enter drainage systems, soil or stretches of water. Sewer coverage. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

5.4 Further information

No information given.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment.

6.2 Environmental precautions

Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

In case of larger quantities: Sewer coverage. Collect product in suitable containers (e.g. made of plastic) using appropriate equipment (e.g. liquid pump). Keep away from flammable substances. Keep away from incompatible substances. Dispose of absorbed material in accordance with the regulations. Rinse away residue with plenty of water. Ventilate room. With small amounts: Dam with sand or eath. Absorb with liquid-binding materia (e.g. inert absorbent unversal binder) pick up. Do not use: textiles, saw dust, combustile substances. Dispose of absorbed material in accordance with the regulations. Rinse away residue with plenty of water. Ventilate room.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin, and clothing. Do not breathe in vapors, aerosols, sprays. Ensure there is good room ventilation. Use personal protective equipment. Check the prope condition of personal safety equipment before use. Immediately rinse contaminated or saturated clothing with water. Immediately change moistened and saturated work clothes. Contaminated work clothing should not be allowed out of the workplace. At work do not eat, drink, smoke, or take drugs. Wash face and/or hands before break and end of work. Do not empty container by means of pressure. Avoid splashing. Close containers immediately after use and returned them to their proper pleace of storage. Avoid resitues of the prodcute on the containers. Never return spilled produced into its original container for re-use. (Risk of decomposition.). Carry out fire/open flame operations with written authrization only. Carefully flush clear and render inert before working on containers ane lines. Use non-sparking tools. Provide for installation of emergancy shower and eye bath. Ser up safety and operation procedures. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

Hygiene measures

Observe occupational exposure limits and minimiza the risk of inhalation of vapors and mist. Ensure suitable suction/aeration at the work place and with operational machinery. Suitable measuring processes are: Hydrogen peroxide (H2O2) OSHA method ID 006 OSHA method VI-6Acetic acid NIOSH method 1603 OSHA method ID 186.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store in cool, dry place. Avoid sun rays, heat, heat effect. Store in tightly closed original container in a well-ventilated place. Recommendation: Acid-proof floor. Only use containers which are spcially permitted for: Peracetic acid. For detailed information on design specification for the constrction of tank- and dosing installations ask the producer for adivce. Use adequate venting devices on all packages, containers and tanks and check coorect operation periodically. Do not contine product in unvented vessels or between closed valves. Rick of overpressure and burst due to decomposition in confined spaces and pipes. Packages, containers and tankes should regularly be checked by visual observation for any sign of abnormality, e.g. corrosion, exert pressure (bulging), remperature increase etc. Transport and store container in upright position only. Store containers in such a manner that liquids released are collected in a ctach vessel in case of leaks. Obeserve shelf-life of the product. Do not store together with: heavy metal compounds, amines and their mixtures, alkali compounds and solutions, reducing agents, metal salts and polymerizing substances (e.g. monomers like styrene, methyl methacrylate) (decomposition hazard).

Incompatibilities

Do not store together with: inflamable substances (risk of fire). Do no store together with bases. Keep away from sources of ignition - No Smoking. Unsuitable material: Steel, Iron, Copper, Brass, Bronze, Aluminium, Zinc, Tin, Lead, Mild steel.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value	
Acetic acid	PEL	10 ppm	25 mg/m3
Hydrogen peroxide	PEL	1 ppm	1.4 mg/m3

US. ACGIH Threshold Limit Values

Component	Type	Value
Acetic acid	TWA	1 ppm
Hydrogen peroxide	TWA	10 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value	
Acetic acid	REL	10 ppm	25 mg/m3
Hydrogen peroxide	REL	1 ppm	1.4 mg/m3

Biological occupational exposure limits

No biological exposure limits noted for the ingredient(s).

8.2 Exposure controls

Appropriate engineering controls

Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Ensure suitable suction/aeration at the work place and with operational machinery. Suitable measuring processes are: Hydrogen peroxide (H2O2) OSHA method ID 006 OSHA method VI-6 Acetic acid NIOSH method 1603 OSHA method ID 186.

Personal protective equipment

Eye/face protection
For monitoring tasks in factory and laboratory: Wear frame spectacles with side protection. Wear googles when filling, decanting or eliminating faults, if splashing/spraying is likely. When handling larger amounts: Additionally wear protective shield.

Skin protection
Hand Protection:
Material: Polychloroprene (PCP) Break-through time: > 480 min. Material: Natural Rubber/ Natural latex (NR) Break-through time: > 480 min. Use disposable gloves and chemical-resistant gloves.

Body Protection
Select materials and equipment for physical protection depending on the concentration and volume of hazardous substances and the workplace involved. Wear protective clothing, acid-proof Suitable materials are: PVC, neoprene, nitrile rubber, natural rubber. Do not wear protective clothes containing cotton. Examples of protective clothing: For monitoring tasks in factory and labortory: Wear the usual laboratory protective clothing: protective apron. When filling, decanting or eliminating faults, if splashing/spraying is likely: protective apron, chemical protective suit. When handlig larger quantites: chemical protective suit disposable protective suit. Foot protection: Weat safety boots, high, protection class S2 or S4 (DIN EN 202345) In order to determine further specification applicable to the personal protection equipment, a hazard asssment according to the OSHA standards (29 CFR 1910.132) for personal protection equipment (PPE) is recommended before the product is used.

Respiratory protection
If engineering controls do not maintain airborne concentraions below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. For example: Full face mask with combination filter A2B2E2K1P2 (Draeger) Full face mask with combination filter OV/AG (3M) Full face mask with combination filter ABEK2P3 (3M) A self-contained breathing apparatus must be worn if the amibient oxygen content is < 17% (v/v) or if the situation is uncertain. Self-contained breathing apparatus (EN 133). Observe limited wearing time of 30 minutes. A respiratory protection progrem that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provinicial requirements must be followed whenever workplace conditions warrant respirator use.

Control of environmental exposure
No additional information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	liquid
Appearance	colorless
Odor	stinging, vinegar-like
Odor Threshold	No data available.
pH	0.2 (68 °F/20 °C) OECD 112 (undiluted)
Freezing Point/Range	Approximate > -22 - -14.8 °/ -30 - -26.0 °C
Boiling Point/Range	Approximate > 140 °F/ > 60 °C (1,103 hPa) Estimated by calculation, Supporting study
Evaporation Rate	No data available.
Flammability (solid)	Not classified as a flammability hazard.
Flammability or explosive limit	
Upper	No data available.
Lower	No data available.
Vapor Pressure	14.1 hPa (68 °F/20 °C) The data is based on the pure substance.
Vapor Density	No data available.
Density	1.1261 g/ml (68 °F/20 °C) (OECD 109)
Solubility	Miscible with water.
Partition coefficient; n-	-0.26 (QSAR) pH 7 The data is based on the pure substance.
Autoignition Temp	The substance or mixture is not classified as pyrophoric.
Decomposition Temp	The substance or mixture is not classified as self-reactive.
Kinematic Viscosity	1.208 mm2/s (68 °F/20 °C, OECD 114) 0.814 mm2/s (104 °F/40 °C, DIN 51562)
Molecular Formula	C2 H4 O3
Molecular Weight	76.05 g/mol
Oxidizing properties	The substance or mixture is not classified as oxidizing. UN Test O.2 (oxidizing liquids)

9.2 Other safety information

No date available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Hazard of self-accelerating, exothermic decomposition under oxygen release due to temperature/hear exposure, contaminations or contact with incompatible materials.

10.2 Chemical stability

Stable under recommended storage conditions. Prodcut is supplies in stabilized form. Commerical products are stabilized to reduce risk of decomposition due to contamination.

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur. Risk of overpressure and burst due to decomposition in confined spaces and pipes. Release of oxygen may support combustion.

10.4 Conditions to avoid

sun rays, heat, heat affect

10.5 Incompatible materials

Impurities, decomposition catalysts, metals, non-ferrous metals, metal salts, reduction agents, alkaline solutions, amines, hydrocarbons, organic solvents, inflmmable materials, polymerizing substances (monomets like styrene, methyl methacrylate, etc.)

10.6 Hazardous decomposition products

Decomposition products in case of thermal decomposition: water vapor, oxygen, acetic acid.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Oral: ATEmix: 757.4 mg/kg

Dermal: LD 50 (Rabbit, Female, Male): 1,147 mg/kg (US-EPA-me

Inhalation: ATEmix: 2.25 mg/I Dusts, mists and fumes. 36.93 mg/I Vapor, corrosive to the respiratory tract

Skin corrosion/irritation

Corrosive.

Serious eye damage/eye irritation

Corrosive.

Respiratory or skin sensitization

Magnussona I Kligmana, OECD 406 (Guinea Pig): Not a skin sensitizer. Peracetic 10%

Germ cell mutagenicity

No evidence of mutagenic effects.

Carcinogenicity

Based on available data, the classification criteria are not met.

Specific target organ toxicity - single exposure

Respiratory tract irritation

Specific target organ toxicity - repeated exposure

No data available.

Reproductive toxicity

No evidence of effects of reproductive/developmental toxicity.

Chronic effects
No data available.

11.2 Additional Information

SECTION 12: Ecological information

12.1 Toxicity

Product		Species	Test Results
Peracetic acid 5%	EC 50	Algae (Pseudokirchneriella subc	0.16 mg/l (US-EPA-method)
	EC 50	Sceletonema costatum, 72 h)	> 1,000 mg/l (ISO 10253)

12.2 Persistence and degradability
Biodegradation product:
98% (28 d, OECD 301 E) The product is easily biodegradable at non-bacteriotoxic concentrations peracetic acid. Under ambient conditions hydrolysis or decomposition occurs, aerobic (3 h, OECD 209) peracetic acid, aerobic, DT50 of 30 mg PAA/L = < 3 minutes.
BOD/COD Ratio Product:
No data available.

12.3 Bio accumulative potential
Bioconcentration Factor (BCF) Product:
low
Partition Coefficient n-octanol / water (log Kow)
Log Kow: -0.26 68 °F (QSAR) pH 7. The data is based on the pure substance.

12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccummulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties
No data available.

12.7 Other adverse effects
No data available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

IMDG

UN/ID No.	UN 3149
Proper shipping name	HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILZED
Class	5.1
Subsidiary risk	8
Packing group	II
Labels	5.1 (8)
EmS Code	F-H, S-Q
Marine pollutant	Yes
Remarks	Protect from thermal radiation. Protect from heat. Separate fro

IATA

UN No.	UN 3149
Proper shipping name	Hydrogen peroxide and peroxyacetic acid mixture stabilized
Class	5.1
Subsidiary risk	8
Packing group	II
Labels	5.1 (8)
Packing instruction (cargo aircraf	554
Packing instruction (passenger aircraft)	550
Remarks	Protect from thermal radiation. FOR USA ONLY: When shipping in, by or via USA note of the reportable quantity-regulation!

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantites.

CERCLA Hazardous Substance List (40 CFR 302.4)

Chemical Identity

Acetic acid
Peracetic acid
Sulphuric acid

SARA 304 Emergency release notification

Chemical Identity

Hydrogen peroxide
Peracetic acid
Sulphuric acid

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

None present or none present in regulated quantites.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

No information available.

SARA 311/312 Hazardous

Organic peroxide, corrosive to metal, acute toxicity (any route of exposure), skin corrosion or irritation, serious eye damage or eye irritation, specifc target organ toxicity (single or

SARA 313 (TRI reporting)

Chemical Identity: Peracetic acid. **% by weight**: 1.0%

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Chemical Identity

Peracetic acid
Sulphuric acid

Safe Drinking Water Act

Chemical Identity

Acetic acid
Sulphuric acid

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not listed

US state regulations

US. Massachusetts RTK - Substance List

Chemical Identity

Hydrogen peroxide
Acetic acid
Peracetic acid
Sulphuric acid

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

Hydrogen peroxide

Acetic acid
Peracetic acid
Sulphuric acid

US. Pennsylvania Worker and Community Right-to-Know Law

Chemical Identity

Hydrogen peroxide
Acetic acid
Peracetic acid

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

US. Rhode Island Right-to-Know Law

Chemical Identity

Hydrogen peroxide
Acetic acid
Peracetic acid

SECTION 16: Other information

Issue date: 10/06/2021
Revision 1: 12/05/2023
Revision 2: 07/02/2024

SECTION 17: Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.