

SAFETY DATA SHEET

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

1.1 Product identifiers

| | |
|--------------|---|
| Product name | Peracetic Acid 15% |
| CAS number | See Section 3 for component information |
| Synonyms | N/A |

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

| | |
|-----------------|-----------------------|
| Identified uses | Biocide, Bactericide. |
|-----------------|-----------------------|

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)

| | |
|---------------------------|------------|
| Flammable Liquids | Category 4 |
| Acute Oral Toxicity | Category 4 |
| Acute Inhalation Toxicity | Category 4 |
| Acute Dermal Toxicity | Category 4 |
| Skin Corrosion | Category 1 |
| Serious Eye Damage | Category 1 |

| | |
|--|------------|
| Specific Target Organ Toxicity (single exposure) | Category 3 |
| Acute Aquatic Toxicity | Category 1 |
| Chronic Aquatic Toxicity | Category 1 |

2.2 GHS Label elements, including precautionary statements

| | |
|--------------------------|---|
| Pictogram |  |
| Signal Word | Danger |
| Hazard statements | <p>Combustible liquid. Harmful if swallowed, in contact with skin or if inhaled Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation. Very toxic to aquatic life with long lasting effects.</p> |
| Precautionary statements | <p>Prevention: Keep away from heat/sparks/open flames/hot surfaces. No smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash skin 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.</p> <p>IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell.</p> <p>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.</p> <p>IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call POISON CENTER/doctor.</p> <p>Fire: In case of fire, use dry sand, dry chemical, or alcohol-resistant foam to extinguish.</p> <p>Spills: Collect spillage.</p> <p>Storage: Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.</p> <p>Disposal: Dispose of contents/container to an approved waste disposal plant.</p> |

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

None identified.

SECTION 3: Composition/information on ingredients

3.1 Components

| Chemical name | Common name and synonyms | CAS number | Concentration |
|-------------------|--------------------------|------------|---------------|
| Water | Aqua; H ₂ O | 7732-18-5 | 39-49% |
| Peracetic acid | - | 79-21-0 | 14-17% |
| Acetic acid | - | 64-19-7 | 24-29% |
| Hydrogen peroxide | - | 7722-84-1 | 13-15% |

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. Move victims to fresh air. With labored breathing: Provide with oxygen. Consult a doctor. If the casualty is not breathing: Perform mouth-to-mouth resuscitation, notify emergency physician immediately.

In case of skin contact Wash off affected area immediately with plenty of water for at least 15 minutes. If symptoms persist, consult a physician for treatment.

In case of eye contact With eye held open, thoroughly rinse immediately with plenty of water for at least 10 minutes. Consult an ophthalmologist immediately if the symptoms persist. When dealing with caustic substances, notify emergency physician immediately.

If swallowed Rinse mouth. Immediately give large quantities of water to drink. Obtain medical attention. When dealing with caustic substances, notify emergency physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Irritation of skin and mucous membranes. Causes burns. Daze, headache, vertigo, somnolence (sleepiness), nausea. Health injuries may be delayed. Strongly irritating to corrosive. Harmful in contact with skin and if swallowed.

4.3 Indication of any immediate medical attention and special treatment needed

The initial focus is only on the local action, characterized by quickly progressing deep tissue damage. In the eye, caustic/ irritating and harmful liquids cause, depending on the intensity of exposure, various levels of irritation, destruction, and ablation of the epithelium of the conjunctiva and cornea, corneal clouding, edema and ulcerations. Danger! Possible loss of eyesight! Superficial irritations and damage up to ulcerations and scarring develop on the

skin. After accidental absorption in the body, the pathology and clinical findings are dependent on the kinetics of the substance (quantity of absorbed substance, the absorption time, and the effectiveness of early elimination measures (first aid)/ excretion - metabolism). A specific action of the substance is unknown. In case of substances with high water solubility, irritations up to formation of necrosis in the upper respiratory tract may result after inhalation of caustic/irritating aerosols and mists. The initial focus is on the local action: signs of irritation of the respiratory tract such as coughing, burning behind the sternum, tears, burning in the eyes or nose. There is a risk of pulmonary edema!

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Water spray, foam, dry powder, or Carbon dioxide. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Do not use full-force water jet in order to avoid dispersal and spread of the fire. Organic compounds.

5.2 Specific hazards arising from the substance or mixture

Involved in fire, it may decompose yielding oxygen. Release of oxygen may support combustion. Risk of overpressure and burst due to decomposition in confined spaces and pipes. Hazardous substances might be released in case of fire: Carbon monoxide, Carbon dioxide.

5.3 Special protective equipment and precautions for firefighters

In the case of fire, wear respiratory protective equipment independent of surrounding air and chemical protective suit. Evacuate personnel to safe areas. Keep out unprotected persons. Remove sources of ignition. 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). 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. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

5.4 Further information

Flash Point 79 °C (ISO 2719)

Autoignition Temperature 280 °C (DIN 51 794)

Explosion limits

Upper No data available.

Lower No data available.

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA

| Health | Flammability | Instability | Physical hazards |
|--------|--------------|-------------|------------------|
| 3 | 2 | 1 | N/A |

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Keep out unprotected persons. Evacuate personnel to safe areas.

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

Absorb with liquid-binding material (e.g. inert absorbent universal binder) and pick up. Do not use: textiles, saw dust, combustible substances. Rinse away any residue with plenty of water. Dispose of absorbed material in accordance with the regulations. Pack and label wastes like the pure substance. Do not detach label from the delivery containers prior to disposal. Clean contaminated surface thoroughly. Recommended cleaning agent: 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**

Use personal protective equipment. Check the proper condition of personal safety equipment before use. Observe ergonomic requirements when selecting personal safety equipment. Avoid contact with eyes, skin, and clothing. The work-place related airborne concentrations have to be kept below of the indicated exposure limits. If workplace exposure limits are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used. Do not breathe in vapours, aerosols, sprays. Ensure there is good room ventilation. Immediately change moistened and saturated work clothes. Immediately rinse contaminated or saturated clothing with water. Avoid impurities and heat effect. Never return spilled product into its original container for re-use. (Risk of decomposition.). Provide for installation of emergency shower and eye bath. Set 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

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin, and clothing. Do not inhale vapour, aerosols, mist. Ensure there is good room ventilation. Immediately rinse contaminated or saturated clothing with water. Immediately change moistened and saturated work clothes. Any contaminated protective equipment is to be cleaned after use. Contaminated work clothing should not be allowed out of the workplace. No eating, drinking, smoking, or snuffing tobacco at work. Wash face and/or hands before break and end of work. Preventive skin protection Use barrier cream regularly.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Avoid sun rays, heat, heat effect. Temperature requirement during storage max. 40 °C. Store in original container. well ventilated, dry, clean, lockable. Use adequate venting devices on all packages, containers and tanks and check correct operation periodically. Do not confine product in unvented vessels or between closed valves. Risk of overpressure and burst due to decomposition in confined spaces and pipes. Check containers and tanks at regular intervals to detect any special changes such as pressure build-up (distension), damage, leakage. Transport and store container in upright position only. Do not empty container by means of pressure. Always close container tightly after removal of product. Do not keep the container sealed. Assure impermeability at all times. Avoid residues of the product on the containers. Store containers in such a manner that liquids released are collected in a catch vessel in case of leaks. Do not store together with: alkalis, reductants, metallic salts (risk of decomposition). Do not store together with: inflammable substances (risk of fire). Keep away from incompatible substances. Release of oxygen may support combustion. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Regularly verify the availability of water to deal with emergencies (for cooling, tank flooding, fire fighting) and check correct operation periodically. For detailed information on design specifications for the construction of tank- and dosing installations ask the producer for advice. Only use containers which are specially permitted for: Peracetic acid. For transport, storage and tank installations only use suitable materials. - Suitable container material: Polyethylene. polypropylene polytetrafluoroethylene Polyvinyl chloride (PVC). glass ceramics.

Incompatibilities

Iron, copper, brass, bronze, aluminium, zinc, lead, tin, 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/m ³ |
| Hydrogen peroxide | PEL | 1 ppm | 1.4 mg/m ³ |

US. ACGIH Threshold Limit Values

| Component | Type | Value |
|-------------|------|--------|
| Acetic acid | STEL | 15 ppm |
| | TWA | 10 ppm |

| | | |
|-------------------|-----|-------|
| Hydrogen peroxide | TWA | 1 ppm |
|-------------------|-----|-------|

US. NIOSH: Pocket Guide to Chemical Hazards

| Component | Type | Value | |
|-------------------|---------|--------|-----------|
| Acetic acid | Ceiling | 40 ppm | |
| | TWA | 10 ppm | 25 mg/m3 |
| Hydrogen peroxide | TWA | 1 ppm | |
| | PEL | 1 ppm | 1.4 mg/m3 |

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Ensure suitable suction/aeration at the work place and with operational machinery. Provide for installation of emergency shower and eye bath.

Personal protective equipment

Eye/face protection

Use chemical splash goggles or face shield.
When handling larger quantities: protective screen.

Skin protection

Wear protective clothing and gloves, acid-proof. Suitable materials are: PVC, neoprene, nitrile rubber, rubber. A safety shower and eye wash fountain should be readily available.

Body Protection

To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29 CFR 1910.132) be conducted before using this product.

Respiratory protection

Do not inhale vapor, aerosols, mist. If workplace exposure limit is exceeded apply Respiratory protective equipment. Wear a self-contained respiratory apparatus. If necessary: Local ventilation. A respiratory protection program that meets OSHA 1910.134 and ANSI z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators. Note time limit for wearing respiratory protective equipment.

Control of environmental exposure

No 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 | approx. 0 (20 °C) |
| Melting Point/Range | Approximate -73 °C (EEC method 92/69/EEC, A 1) |
| Boiling Point/Range | >= 60 °C decomposes |
| Evaporation Rate | No data available |
| Flammability (solid) | Not applicable |
| Flammability or explosive limit | No data available |
| Upper | |
| Lower | |
| Vapor Pressure | 1,700 Pa (20 °C) |
| Vapor Density | |
| Density | 1.14 g/ml (20 °C) |
| Solubility | Miscible |
| Partition coefficient; n-octanol/water | -0.26 |
| Autoignition Temp | 280 °C |
| Decomposition Temp | >= 60 °C |
| Viscosity | 1.554 mm ² /s (20 °C) 1.017 mm ² /s (40 °C) |
| Molecular Formula | N/A |
| Molecular Weight | N/A |
| VOC Content(%) | No data available |
| Oxidizing properties | No data available |

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Risk of self-accelerating, exothermic decomposition with the development of oxygen at Effect of thermal energy / heat. Product is a(n) oxidizing agent and reactive.

10.2 Chemical stability

Stable under recommended storage conditions. Product is supplied in stabilised form. Commercial products are stabilised to reduce risk of decomposition due to contamination.

10.3 Possibility of hazardous reactions

Risk of overpressure and burst due to decomposition in confined spaces and pipes. Risk of decomposition in contact with incompatible substances, impurities, metals, alkalis, reducing agents. Release of oxygen may support combustion.

10.4 Conditions to avoid

Sun rays, heat, heat effect.

10.5 Incompatible materials

Impurities, decomposition catalysts metals, nonferrous heavy metal, aluminium, zinc. metallic salts, alkalis, reducing agents, flammable material, organic solvent.

10.6 Hazardous decomposition products

Steam, oxygen, acetic acid.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--------------------|------------|-------------|-----------------|
| Peracetic acid 15% | 1015 mg/kg | 1912 mg/kg | 0.49 mg/l |

Skin corrosion/irritation

Strongly corrosive (Test substance: peracetic acid 5%).

Serious eye damage/eye irritation

Corrosive (Test substance: peracetic acid 5%).

Respiratory or skin sensitization

Strongly corrosive (Test substance: peracetic acid 10%).

Germ cell mutagenicity

Ames test: predominantly negative.

Carcinogenicity

No carcinogens present or none present in regulated quantities.

Specific target organ toxicity - single exposure

Respiratory system.

Specific target organ toxicity - repeated exposure

None known.

Reproductive toxicity

No information available.

Chronic effects

No information available.

11.2 Additional Information

No information available.

SECTION 12: Ecological information

12.1 Toxicity

| Product | | Species | Test Results |
|----------------|------|--|--------------------|
| Peracetic acid | LC50 | Freshwater fish (<i>P. platessa</i>) | 11 mg/l 96h |
| | LC50 | Freshwater fish (<i>O. mykiss</i>) | 1-2 mg/l 96h |
| | EC50 | Water flea (<i>D. magna</i>) | 0.5 - 1.1 mg/l 48h |
| | IC50 | Algae (<i>S. capricornutum</i>) | 0.18 mg/l 120h |
| | EC50 | Activated sludge | 5.1 mg/l 3h |
| | NOEC | Fish (<i>D. rerio</i>) | 0.015 mg/l 33d |
| | NOEC | Water flea (<i>D. magna</i>) | 0.05 mg/l 21d |
| | EC50 | Microtox | >933.6 mg/kg 28d |
| PAA solution | NOEC | Water flea (<i>D. magna</i>) | 1 mg/l 48h |
| | EC50 | Water flea (<i>D. magna</i>) | 3.3 mg/l 48h |
| | LC50 | Microtox (<i>E. foetida</i>) | >1000 mg/kg 14d |
| | NOEC | Terrestrial plants | 180 mg/kg 14d |

12.2 Persistence and degradability

Readily biodegradable (according to OECD TG 301 E).

12.3 Bio accumulative potential

Low; see Section 9 for log pow.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

Does not contain any heavy metals and compounds from EC directive 76.464.

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)

| | |
|-------------------------------|--|
| UN-no | UN3109 |
| Proper Shipping Name | Organic peroxide type F, liquid (Peroxyacetic acid, type F stabilized - 14%-17%, contains acetic acid) |
| Hazard Class | 5.2(8) |
| Packing Group | II |
| Special Precautions for User: | Keep separate from alkalis, powdered metals and flammables. |

IMDG

| | |
|-------------------------------|---|
| UN-no | UN3109 |
| Proper Shipping Name | Organic peroxide type F, liquid (Peroxyacetic acid, type F stabilized - 14%-17%, contains acetic acid) |
| Hazard Class | 5.2(8) |
| Packing Group | -- |
| Special Precautions for User: | "Separated from" acids and alkalis. Protected from sources of heat. Keep separate from alkalis, powdered metals and flammable substances. |

IATA

| | |
|-------------------------------|---|
| UN-no | UN3109 |
| Proper Shipping Name | Organic peroxide type F, liquid (Peroxyacetic acid, type F stabilized - 14%-17%, contains acetic acid) |
| Hazard Class | 5.2(8) |
| Packing Group | -- |
| Special Precautions for User: | Must be protected from direct sunlight and stored away from all sources of heat in a well-ventilated area. Must be protected from direct sunlight and kept separate from alkalis, powdered metals and flammable substances. |

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)
Not applicable.

CERCLA Hazardous Substance List (40 CFR 302.4)
Listed, Acetic acid (CAS #64-19-7), RQ: 5000 lb.

SARA 304 Emergency release notification

Listed, Peracetic acid (CAS #79-21-0), RQ: 500 lb.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Listed, Peracetic acid (CAS #79-21-0), TPQ: 500 lb.

SARA 311/312 Hazardous

See Section 2 for more information.

SARA 313 (TRI reporting)

Listed, Peracetic acid (CAS #79-21-0).

Other federal regulations

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

Listed, Peracetic acid (CAS #79-21-0).

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

Listed, Peracetic acid (CAS #79-21-0), RQ: 10000 lb.

Clean Water Act (CWA)

Listed, Acetic acid (CAS #64-19-7).

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

Listed, Acetic acid (CAS #64-19-7).

US state regulations

US. Massachusetts RTK - Substance List

Listed, Acetic acid (CAS #64-19-7).

Listed, Peracetic acid (CAS #79-21-0).

Listed, Hydrogen peroxide (CAS #7722-84-1).

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

Listed, Acetic acid (CAS #64-19-7).

Listed, Peracetic acid (CAS #79-21-0).

Listed, Hydrogen peroxide (CAS #7722-84-1).

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

Listed, Acetic acid (CAS #64-19-7).

Listed, Peracetic acid (CAS #79-21-0).

Listed, Hydrogen peroxide (CAS #7722-84-1).

California Proposition 65

Not listed.

SECTION 16: Other information

Issue date: 12/05/2023

Revision 1: 07/01/2024

Revision 2: 11/08/2024

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.