

SAFETY DATA SHEET

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

1.1 Product identifier

- Trade name: **LERASEPT™ PAA**
- Synonyms: PAA
- Molecular formula: CH₃-COOOH

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

- Cleaning agent
- Oxidizing Agents
- Manufacture of pulp, paper and paper products

1.3 Details of the supplier of the Safety Data Sheet

Company

LOEFFLER CHEMICAL CORPORATION
200 GREAT SOUTHWEST PARKWAY
ATLANTA, GEORGIA 30336-2308
USA
Tel: +1-800-769-5020; +1-404-629-0999
Fax: +1-404-629-0690

1.4 Emergency telephone

CHEMICAL EMERGENCY RESPONSE NUMBER:
SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT
CALL CHEMTREC (24hrs): 1-800-424-9300
International Calls: +1-703-527-3887
Reference Code: CCN13310

SECTION 02 - HAZARDS IDENTIFICATION

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

2.1 Classification of the substance or mixture

HCS 2012 (29 CFR 1910.1200)

- | | |
|---|--|
| Organic peroxides, Type F | H242: Heating may cause a fire. |
| Corrosive to Metals, Category 1 | H290: May be corrosive to metals. |
| Acute toxicity, Category 4 | H302: Harmful if swallowed. |
| Acute toxicity, Category 4 | H312: Harmful in contact with skin. |
| Skin corrosion, Category 1A | H314: Causes severe skin burns and eye damage. |
| Serious eye damage, Category 1 | H318: Causes serious eye damage. |
| Specific target organ systemic toxicity - single Exposure, Category 3 | H335: May cause respiratory irritation. (Respiratory system) |

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2.2 Label elements

HCS 2012 (29 CFR 1910.1200)

Pictograms



Signal Word

- Danger

Hazard Statements

- | | |
|---------------|---|
| - H242 | Heating may cause a fire. |
| - H290 | May be corrosive to metals. |
| - H302 + H312 | Harmful if swallowed or in contact with skin. |
| - H314 | Causes severe skin burns and eye damage. |
| - H318 | Causes serious eye damage. |
| - H335 | May cause respiratory irritation. |

Precautionary Statements

Prevention

- | | |
|--------|---|
| - P210 | Keep away from heat/sparks/open flames/hot surfaces. No smoking. |
| - P220 | Keep/Store away from clothing/ combustible materials. |
| - P234 | Keep only in original container. |
| - P261 | Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. |
| - 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. |

Response

- | | |
|-----------------------------|--|
| - P301 + P312 + P330 | IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. |
| - P301 + P330 + P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| - P303 + P361 + P353 | IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. |
| - P304 + P340 + P310 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. |
| - P305 + P351 + P338 + P310 | 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/physician. |
| - P363 | Wash contaminated clothing before reuse. |
| - P390 | Absorb spillage to prevent material damage. |

Storage

- | | |
|---------------|--|
| - P403 + P233 | Store in a well-ventilated place. Keep container tightly closed. |
| - P405 | Store locked up. |
| - P406 | Store in corrosive resistant stainless steel container with a resistant inner liner. |
| - P410 | Protect from sunlight. |
| - P411 + P235 | Store at temperatures not exceeding 30 °C/ 88 °F. Keep cool. |
| - P420 | Store away from other materials. |

Disposal

- | | |
|--------|---|
| - P501 | Dispose of contents/ container to an approved waste disposal plant. |
|--------|---|

2.3 Other hazards which do not result in classification

- | | |
|---------|--|
| - H401: | Toxic to aquatic life. |
| - H411: | Toxic to aquatic life with long lasting effects. |

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SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

- Not applicable, this product is a mixture.

3.2 Mixture

- Synonyms PAA, Peroxyethanoic acid, Peracetic acid
- Formula CH₃-COOOH
- Chemical nature Mixture

CAS NUMBER	CHEMICAL NAME	%
79-21-0	Peroxyacetic Acid	< 17
7722-84-1	Hydrogen Peroxide	< 31
64-19-7	Acetic Acid	< 16
2809-21-4	Phosphonic Acid	< 2

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 04 - FIRST AID MEASURES

4.1 Description of first-aid measures

In case of inhalation

- Move to fresh air.
- Oxygen or artificial respiration if needed.
- Victim to lie down in the recovery position, cover and keep him warm.
- Call a physician immediately.

In case of skin contact

- Take off contaminated clothing and shoes immediately.
- Wash off immediately with plenty of water.
- Keep warm and in a quiet place.
- Call a physician or poison control center immediately.
- Wash contaminated clothing before re-use.

In case of eye contact

- Call a physician or poison control center immediately.
- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine).
- Take victim immediately to hospital.

In case of ingestion

- Call a physician or poison control center immediately.
- Take victim immediately to hospital.
- If swallowed, rinse mouth with water (only if the person is conscious).
- Do NOT induce vomiting.
- Artificial respiration and/or oxygen may be necessary.

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4.2 Most important symptoms and effects, both acute and delayed

In case of inhalation

Symptoms

- Breathing difficulties
- Cough
- Chemical pneumonitis
- pulmonary edema

Effects

- Corrosive to respiratory system.

Repeated or prolonged exposure

- Nose bleeding
- chronic bronchitis

In case of skin contact

Symptoms

- Redness
- Swelling of tissue

Effects

- Corrosive
- Causes severe burns.

In case of eye contact

Symptoms

- Redness
- Lachrymation
- Swelling of tissue

Effects

- Corrosive
- Causes severe burns.
- May cause irreversible eye damage.
- May cause blindness.

In case of ingestion

Symptoms

- Nausea
- Abdominal pain
- Bloody vomiting
- Diarrhea
- Suffocation
- Cough
- Severe shortness of breath

Effects

- If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
- Risk of respiratory disorder

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician

- Take victim immediately to hospital.
- Immediate medical attention is required.
- Consult with an ophthalmologist immediately in all cases.
- Burns must be treated by a physician.
- If swallowed
- Avoid gastric lavage (risk of perforation).
- Keep under medical supervision for at least 48 hours.

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SECTION 05 - FIRE FIGHTING MEASURES

Flash point Not applicable, Flammable vapors may occur above the SADT
Autoignition temperature No data available
Flammability / Explosive limit No data available

5.1 Extinguishing media

Suitable extinguishing media

- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Water
- Water spray

Unsuitable extinguishing media

- None.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting

- Heating may cause a fire.
- Oxygen released in thermal decomposition may support combustion

Hazardous combustion products:

- Oxygen

5.3 Advice for firefighters

Special protective equipment for fire-fighters

- In the event of fire, wear self-contained breathing apparatus.
- Use personal protective equipment.
- Wear chemical resistant oversuit
- Cool containers/tanks with water spray.
- Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 06 – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

- Advice for non-emergency personnel
- Evacuate personnel to safe areas.
- Keep people away from and upwind of spill/leak.
- Advice for emergency responders
- Use personal protective equipment.
- Drying of this product on clothing or combustible materials may cause fire.
- Keep wetted with water.
- Prevent further leakage or spillage.
- Keep away from incompatible products

6.2 Environmental precautions

- Discharge into the environment must be avoided.
- Do not flush into surface water or sanitary sewer system.
- In case of accidental release or spill, immediately notify the appropriate authorities if required by Federal, State/Provincial and local laws and regulations.

6.3 Methods and materials for containment and cleaning up

- Dam up.
- Soak up with inert absorbent material.
- Do not let product enter drains.
- Keep in suitable, closed containers for disposal.
- Keep in properly labeled containers.

6.4 Reference to other sections

- Refer to protective measures listed in sections 7 and 8.

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6.3 Methods and materials for containment and cleaning up

- Dam up.
- Soak up with inert absorbent material.
- Do not let product enter drains.
- Keep in suitable, closed containers for disposal.
- Keep in properly labeled containers.

6.4 Reference to other sections

- Refer to protective measures listed in sections 7 and 8.

SECTION 07 – HANDLING AND STORAGE

7.1 Precautions for safe handling

- Use only in well-ventilated areas.
- Before all operations, passivate the piping circuits and vessels according to the procedure recommended by the producer.
- Use only clean and dry utensils.
- Never return unused material to storage receptacle.
- May not get in touch with:
 - Organic materials
- Keep away from incompatible products
- Keep away from heat.

Hygiene measures

- Ensure that eyewash stations and safety showers are close to the workstation location.
- Take off contaminated clothing and shoes immediately.
- Wash contaminated clothing before re-use.
- When using, do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

- Store in original container.
- Keep tightly closed in a dry, cool and well-ventilated place.
- Keep in properly labeled containers.
- Keep in a contained area
- Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- Electrical equipment should be protected to the appropriate standard.
- Keep away from incompatible products
- Organic Peroxide Storage (Burning Rate) Type IV according to the BGV B4 test method

Packaging material

Suitable material

- Approved grades of HDPE.
- Stainless steel cleaned and passivated

7.3 Specific end use(s)

- no data available

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SECTION 08 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

Components with workplace occupational exposure limits

Ingredients	Value Type	Value	Basis
Hydrogen peroxide (H2O2)	TWA	1 ppm 1.4 mg/m3	National Institute for Occupational Safety and Health
Hydrogen peroxide (H2O2)	TWA	1 ppm	American Conference of Governmental Industrial Hygienists
Hydrogen peroxide (H2O2)	TWA	1 ppm 1.4 mg/m3	Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
Acetic Acid	TWA	10 ppm 25 mg/m3	National Institute for Occupational Safety and Health
Acetic Acid	ST	15 ppm 37 mg/m3	National Institute for Occupational Safety and Health
Acetic Acid	TWA	10 ppm	American Conference of Governmental Industrial Hygienists
Acetic Acid	STEL	15 ppm	American Conference of Governmental Industrial Hygienists
Acetic Acid	TWA	10 ppm 25 mg/m3	Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
Ethaneperoxoic acid			

NIOSH IDLH (Immediately Dangerous to Life or Health Concentrations)

Ingredients	CAS No.	Concentration
Hydrogen Peroxide (H2O2)	7722-84-1	75 ppm
Acetic Acid	64-19-7	50 ppm
Hydrogen Peroxide (H2O2)	7722-84-1	75 ppm
Acetic Acid	64-19-7	50 ppm

8.2 Exposure controls

Control measures

Engineering measures

- Ensure adequate ventilation.
- Apply technical measures to comply with the occupational exposure limits.

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Individual protection measures

Respiratory protection

- In case of insufficient ventilation, wear suitable respiratory equipment.
- Respirator with a vapor filter (EN 141)
- Recommended Filter type: ABEK-P2

Hand protection

- Impervious gloves
- Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Suitable material

- butyl-rubber
- Break through time: > 480 min
- Glove thickness: >= 0.4 mm

Eye protection

- Chemical resistant goggles must be worn.
- If splashes are likely to occur, wear:
 - Tightly fitting safety goggles
 - Face-shield

Skin and body protection

- Apron/boots of butyl rubber if risk of splashing.

Hygiene measures

- Ensure that eyewash stations and safety showers are close to the workstation location.
- Take off contaminated clothing and shoes immediately.
- Wash contaminated clothing before re-use.
- When using do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

SECTION 09 – PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties

Appearance	Form: liquid Physical state: liquid Color: colorless
Odor	pungent
Odor Threshold	no data available
pH	< 1.5 pKa: 8.2 (77 °F (25 °C))
Freezing point	ca. -44 °F (-42 °C) Method: Calculation method
Boiling point/boiling range	ca. 221 °F (105 °C) Method: Calculation method

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Flash point	Not applicable, Flammable vapors may occur above the SADT
Evaporation rate (Butylacetate = 1)	no data available
Flammability (liquids)	Not applicable
Flammability / Explosive limit	Explosiveness: Not explosive
Autoignition temperature	no data available
Vapor pressure	ca. 24 mmHg (32 hPa) (77 °F (25 °C)) Method: Calculation method
Vapor density	no data available
Density	Relative density: 1.11 g/cm ³
Solubility	<u>Water solubility:</u> 1,000 g/l (68 °F (20 °C)) completely miscible <u>Solubility in other solvents:</u> organic polar solvents : soluble Aromatic solvents : slightly soluble
Thermal decomposition	>= 131 °F (>= 55 °C) Self-Accelerating decomposition temperature (SADT)
Viscosity	no data available
Explosive properties	Not explosive
Oxidizing properties	Oxidizer
<u>9.2 Other information</u>	
Corrosion of Metals	Corrosive to metals
Peroxides	The substance or mixture is an organic peroxide classified as type F.

SECTION 10 – STABILITY AND REACTIVITY

10.1 Reactivity

- Decomposes on heating.
- Heating may cause a fire.
- Potential for exothermic hazard

10.2 Chemical stability

- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

- Contact with combustible material may cause fire.
- Contact with flammables may cause fire or explosions.
- Risk of explosion if heated under confinement.
- Fire or intense heat may cause violent rupture of packages.

10.4 Conditions to avoid

- Contamination
- To avoid thermal decomposition, do not overheat.

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10.5 Incompatible materials

- Acids
- Bases
- Metals
- Heavy metal salts
- Powdered metal salts
- Reducing agents
- Organic materials
- Flammable materials

10.6 Hazardous decomposition products

- Oxygen

SECTION 11 – TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

LD50 : 652 mg/kg - Rat
Test substance: 11,7 % PAA mixture

Acute inhalation toxicity

LC50 - 4 h (aerosol) 1.3 mg/l - Rat
Test substance: 15 % PAA mixture

Acute dermal toxicity

LD50 Dermal 1,957 mg/kg - Rabbit
Test substance: 11,7 % PAA mixture

Acute toxicity (other routes of administration)

no data available

Skin corrosion/irritation

Rabbit
Corrosive

Serious eye damage/eye irritation

Rabbit
Causes serious eye damage.

Respiratory or skin sensitization

Guinea pig
Did not cause sensitization on laboratory animals.

Mutagenicity

Genotoxicity in vitro

In vitro tests have shown mutagenic effects.

Genotoxicity in vivo

Animal testing did not show any mutagenic effects.

Carcinogenicity

Hydrogen peroxide (H₂O₂)

Mouse
Oral
Exposure time: Prolonged exposure
Target Organs: duodenum
carcinogenic effects

Mouse
Dermal
Exposure time: Prolonged exposure
Animal testing did not show any carcinogenic effects.

Acetic acid

Animal testing did not show any carcinogenic effects.
Published data

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP
IARC
OSHA

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Toxicity for reproduction and development

Toxicity to reproduction / fertility No toxicity to reproduction

Developmental Toxicity/Teratogenicity

Acetic acid Rat, female
Application Route: Oral
Method: according to a standardized method
Published data
Mouse
No effect observed on development
Published data
Rabbit
No effect observed on development
Published data

Acetic acid Rat , female
Application Route: Oral
Method: according to a standardized method
Published data
Mouse
No effect observed on development
Published data
Rabbit
No effect observed on development
Published data

Experience with human exposure

Experience with human exposure : Ingestion

Acetic acid On ingestion, may cause mucous membranes to bleed
Published data
Acetic acid On ingestion, may cause mucous membranes to bleed
Published data

CMR effects

Carcinogenicity

Acetic acid No evidence of carcinogenicity in animal studies.
Acetic acid No evidence of carcinogenicity in animal studies.

Mutagenicity

Acetic acid Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Acetic acid Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Aspiration toxicity

Acetic acid Not applicable, internal evaluation
Acetic acid Not applicable, internal evaluation

Further information

no data available

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish

Hydrogen peroxide (H2O2) LC50 - 96 h : 16.4 mg/l - Pimephales promelas (fathead minnow)
NOEC - 96 h : 4.3 mg/l - Pimephales promelas (fathead minnow)
Acetic acid LC50 - 96 h : > 300 mg/l - Oncorhynchus mykiss (rainbow trout)
semi-static test

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Analytical monitoring: no
Method: OECD Test Guideline 203
Not harmful to fish (LC50 > 100 mg/L)
Unpublished reports

Ethaneperoxoic acid	LC50 - 96 h : 1.1 mg/l - Lepomis macrochirus (Bluegill sunfish) NOEC - 33 d : 0.00094 mg/l - Danio rerio (zebra fish) Early-life Stage
Hydrogen peroxide (H2O2)	LC50 - 96 h : 16.4 mg/l - Pimephales promelas (fathead minnow) NOEC - 96 h : 4.3 mg/l - Pimephales promelas (fathead minnow)
Acetic acid	LC50 - 96 h : > 300 mg/l - Oncorhynchus mykiss (rainbow trout) semi-static test Analytical monitoring: no Method: OECD Test Guideline 203 Not harmful to fish (LC50 > 100 mg/L) Unpublished reports
Ethaneperoxoic acid	LC50 - 96 h : 1.1 mg/l - Lepomis macrochirus (Bluegill sunfish) NOEC - 33 d : 0.00094 mg/l - Danio rerio (zebra fish) Early-life Stage

Acute toxicity to daphnia and other aquatic invertebrates.

Hydrogen peroxide (H2O2)	EC50 - 48 h : 2.4 mg/l - Daphnia pulex (Water flea) semi-static test Fresh water NOEC - 48 h : 1 mg/l - Daphnia pulex (Water flea) semi-static test Fresh water
Acetic acid	EC50 - 48 h : > 300 mg/l - Daphnia magna (Water flea) semi-static test Analytical monitoring: yes Method: OECD Test Guideline 202 Not harmful to aquatic invertebrates. (EC50 > 100 mg/L) Unpublished reports
Ethaneperoxoic acid	EC50 - 48 h : 0.73 mg/l - Daphnia magna (Water flea)
Hydrogen peroxide (H2O2)	EC50 - 48 h : 2.4 mg/l - Daphnia pulex (Water flea) semi-static test Fresh water NOEC - 48 h : 1 mg/l - Daphnia pulex (Water flea) semi-static test Fresh water
Acetic acid	EC50 - 48 h : > 300 mg/l - Daphnia magna (Water flea) semi-static test Analytical monitoring: yes Method: OECD Test Guideline 202 Not harmful to aquatic invertebrates. (EC50 > 100 mg/L) Unpublished reports
Ethaneperoxoic acid	EC50 - 48 h : 0.73 mg/l - Daphnia magna (Water flea)

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Toxicity to aquatic plants

Hydrogen peroxide (H ₂ O ₂)	EC ₅₀ - 72 h : 2.6 mg/l - Skeletonema costatum (marine diatom) Growth rate
Acetic acid	NOEC - 72 h : 0.63 mg/l - Skeletonema costatum (marine diatom) EC ₁₀ - 72 h : 300 mg/l - Skeletonema costatum static test Analytical monitoring: yes Method: OECD Test Guideline 201 Growth rate No adverse chronic effect observed up to and including the threshold of 1 mg/L. Unpublished reports ErC ₅₀ - 72 h : > 300 mg/l - Skeletonema costatum static test Method: OECD Test Guideline 201 Not harmful to algae (EC ₅₀ > 100 mg/L) Unpublished reports
Ethaneperoxoic acid	EC ₅₀ - 96 h : 0.16 mg/l - Pseudokirchneriella subcapitata (green algae)
Hydrogen peroxide (H ₂ O ₂)	EC ₅₀ - 72 h : 2.6 mg/l - Skeletonema costatum (marine diatom) Growth rate NOEC - 72 h : 0.63 mg/l - Skeletonema costatum (marine diatom)
Acetic acid	EC ₁₀ - 72 h : 300 mg/l - Skeletonema costatum static test Analytical monitoring: yes Method: OECD Test Guideline 201 Growth rate No adverse chronic effect observed up to and including the threshold of 1 mg/l . Unpublished reports ErC ₅₀ - 72 h : > 300 mg/l - Skeletonema costatum static test Method: OECD Test Guideline 201 Not harmful to algae (EC ₅₀ > 100 mg/L) Unpublished reports
Ethaneperoxoic acid	EC ₅₀ - 96 h : 0.16 mg/l - Pseudokirchneriella subcapitata (green algae)

Toxicity to microorganisms

Acetic acid	static test NOEC - 16 h : 1,150 mg/l - Pseudomonas putida semi-static test Analytical monitoring: no Published data
Acetic acid	static test NOEC - 16 h : 1,150 mg/l - Pseudomonas putida semi-static test Analytical monitoring: no Published data

Chronic toxicity to daphnia and other aquatic invertebrates.

Hydrogen peroxide (H ₂ O ₂)	NOEC: 0.63 mg/l - 21 Days - Daphnia magna (Water flea) Reproduction Test
Hydrogen peroxide (H ₂ O ₂)	NOEC: 0.63 mg/l - 21 Days - Daphnia magna (Water flea) Reproduction Test

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12.2 Persistence and degradability

Biodegradation

Biodegradability

aerobic
Biodegradable

Effects on waste water treatment plants
Inhibitor

Method: Abiotic degradation

Degradability assessment

Acetic acid

The product is considered to be rapidly degradable in the environment

Acetic acid

The product is considered to be rapidly degradable in the environment

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water

Acetic acid

Not potentially bioaccumulable

Acetic acid

Not potentially bioaccumulable

Bioconcentration factor (BCF)

Does not bioaccumulate.

12.4 Mobility in soil

Adsorption potential (Koc)

Water
soluble
mobile

Soil/sediments
non-significant adsorption

Known distribution to environmental compartments

Acetic acid

Ultimate destination of the product: Water
Structure-activity relationship (SAR)

Air
Structure-activity relationship (SAR)

12.5 Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating, and toxic (PBT).
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

no data available

Ecotoxicity assessment

Acute aquatic toxicity

Acetic acid

Not harmful to aquatic life (LC/EC50 > 100 mg/L)

Chronic aquatic toxicity

Acetic acid

No adverse chronic effect observed up to and including the threshold of 1 mg/L.

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SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product Disposal

- Contact manufacturer.
- Contact waste disposal services.
- In accordance with local and national regulations.

Waste Code

- Environmental Protection Agency
- Hazardous Waste – YES
- RCRA Hazardous Waste (40 CFR 302)
- D001 - Ignitable waste – (I)

Advice on cleaning and disposal of packaging

- Empty containers.
- Clean container with water.
- Dispose of rinse water in accordance with local and national regulations.
- Where possible recycling is preferred to disposal or incineration.
- In accordance with local and national regulations.

SECTION 14 – TRANSPORT INFORMATION

Transportation status: IMPORTANT! Statements below provide additional data on listed transport classification. The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

DOT

14.1 UN number	UN 3109
14.2 Proper shipping name	ORGANIC PEROXIDE TYPE F, LIQUID (Peroxyacetic acid, Type F, stabilized)
14.3 Transport hazard class	5.2 Subsidiary hazard class 8 Label(s) 5.2 (8)
14.4 Packing group	Packing group II ERG No 145
14.5 Environmental hazards Marine pollutant	No

TDG

14.1 UN number	UN 3109
14.2 Proper shipping name	ORGANIC PEROXIDE TYPE F, LIQUID (Peroxyacetic acid, Type F, stabilized)
14.3 Transport hazard class	5.2 Subsidiary hazard class 8 Label(s) 5.2 (8)
14.4 Packing group	Packing group II ERG No 145

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14.5 Environmental hazards

Marine pollutant NO

IMDG

14.1 UN number UN 3109

14.2 Proper shipping name ORGANIC PEROXIDE TYPE F, LIQUID (Peroxyacetic acid, Type F, stabilized)

14.3 Transport hazard class 5.2
Subsidiary hazard class 8
Label(s) 5.2 (8)

14.4 Packing group

Packing group Not specified

14.5 Environmental hazards

Marine pollutant NO

14.6 Special precautions for user

EmS F-J , S-R

For personal protection see section 8.

IATA

14.1 UN number UN 3109

14.2 Proper shipping name ORGANIC PEROXIDE TYPE F, LIQUID (Peroxyacetic acid, Type F, stabilized)

14.3 Transport hazard class 5.2
Subsidiary hazard class: HEAT, 8
Label(s): 5.2 (HEAT, 8)

14.4 Packing group

Packing instruction (cargo aircraft)	570
Max net qty / pkg	25.00 L
Packing instruction (passenger aircraft)	570
Max net qty / pkg	10.00 L

14.5 Environmental hazards NO

14.6 Special precautions for user

For personal protection see section 8.

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

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SECTION 15 – REGULATORY INFORMATION

TSCA Inventory List: Yes.

CERCLA Hazardous Substance (40 CFR § 302)

Listed Substance: Yes (acetic acid).

Unlisted Substance: Yes.

Characteristic: Ignitability, corrosivity.

RCRA Waste Number: D001, D002.

Reportable Quantity: 100 pounds, 5,000 pounds (acetic acid).

SARA Title III, Sections 311/312 (40 CFR § 370)

Hazard Category: Fire Hazard
Immediate Health Hazard
Reactive

Planning Threshold: 500 pounds.

SARA Title III, Section 313 (40 CFR § 372)

Listed Toxic Chemical: Yes.

SARA Title III, Sections 302/303 (40 CFR § 355)

Extremely Hazardous Substance: Yes.

Reportable Quantity: 500 pounds.

Planning Threshold: 500 pounds.

Canadian WHMIS Classification

C - Oxidizing
E - Corrosive
F - Dangerously Reactive

Canadian Domestic Substances List (DSL)

Listed Substance: Yes.

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Occupational Safety and Health Administration (OSHA) requirements for process safety management must be followed anytime at least 1,000 lbs. of peracetic, (> 60% acetic acid) is used or stored. Refer to 29CFR1910.119 for specific details.

Environmental Protection Agency (EPA) requirements for a Risk Management Plan (RMP) must be followed anytime at least 10,000 lbs. of peracetic acid is used or stored. Refer to 40CFR68.150 for specific details.

Loeffler Chemical Corporations Peracetic Acid formulations as packaged have a partial pressure of Peracetic Acid less than 10 mm of mercury (mmHg) up to 60°C (140°F) and therefore need not be considered when determining threshold quantities for RMP. Refer to 40CFR68.115 (b) (1) for details.

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SECTION 16 – OTHER INFORMATION

NFPA (National Fire Protection Association) - Classification

Health	3 serious
Flammability	1 slight
Instability or Reactivity	2 moderate
Special Notices	OX Oxidizer

HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification

Health	3 serious
Flammability	1 slight
Reactivity	2 moderate

PPE Determined by User; dependent on local conditions

Further information

- Environmental Protection Agency (EPA) requirements for a Risk Management Plan must be followed anytime at least 10000 lbs. of Peracetic acid are used or stored. Refer to 40 CFR 68.150 for specific details.
- <** Phrase language not available: [Z8] CUST - S170.0000790 **>
- <** Phrase language not available: [Z8] CUST - ST80.0010060 **>
- Wear an approved full-face air supplied respirator for excessive or unknown concentrations. Selected chemical cartridges for respirators, i.e. OV, OV/AG, GME have been tested successfully under lab conditions to remove hydrogen peroxide and peracetic acid vapors in concentrations exceeding the applicable exposure limits.
- The National Transportation Safety Board (NTSB) and Federal Aviation Administration (FAA) have requested the following information be provided: Combustible materials exposed to hydrogen peroxide should be immediately submerged in or rinsed with large amounts of water to ensure that all hydrogen peroxide is removed. Residual hydrogen peroxide that is allowed to dry (upon evaporation hydrogen peroxide can concentrate) on organic materials such as paper, fabrics, cotton, leather, wood or other combustibles can cause the material to ignite and result in a fire.
- Product evaluated under the US GHS format.

Date Prepared: 08/20/2015

Last Revision:

Key or legend to abbreviations and acronyms used in the safety data sheet

- ST	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
- STEL	Short-term exposure limit
- TWA	8-hour, time-weighted average
- ACGIH	American Conference of Governmental Industrial Hygienists
- OSHA	Occupational Safety and Health Administration
- NTP	National Toxicology Program
- IARC	International Agency for Research on Cancer
- NIOSH	National Institute for Occupational Safety and Health

Note:

The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.