

# SAFETY DATA SHEET



## OXYMIZE®

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### Product Identifier

**Product Name** Oxymize®

#### Other means of identification

**EPA Registration Number** 65402-9-6243

**CAS-No** 79-21-0

**Synonyms** Peracetic Acid; Ethaneperoxoic Acid; Peroxyacetic Acid; Acetyl Hydroperoxide

#### Recommended use of the chemical and restrictions on use

**Recommended Use:** Circulation cleaning and sanitizing of equipment such as tanks, pipelines, evaporators, fillers, pasteurizers, and aseptic equipment in dairies, wineries, breweries and beverage plants; Sanitizing of inanimate, non-food contact surfaces (general environmental surfaces); Disinfection of hard surfaces in general commercial and medical environments.

**Restrictions on Use:** Use as recommended by the label.

**Supplier:** Auto-Chlor System, LLC 746 Poplar Avenue  
Memphis, TN 38105  
Phone: 901-579-2300 (General Information)

**Emergency telephone number:** For leak, fire, spill or accident emergencies, call:  
1-800-424-9300 (CHEMTREC)  
1-866-923-4946 (PROSAR - Medical)

### 2. HAZARDS IDENTIFICATION

#### Classification

#### **OSHA Regulatory Status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Vapors)	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3
Organic Peroxide	Type F

**GHS Label elements, including precautionary statements****EMERGENCY OVERVIEW****Danger****Hazard Statements**

H314 - Causes severe skin burns and eye damage  
H302 - Harmful if swallowed  
H312 - Harmful in contact with skin  
H332 - Harmful if inhaled  
H335 - May cause respiratory irritation  
H242 - Heating may cause a fire

**Precautionary Statements - Prevention**

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection  
P260 - Do not breathe mist, vapours or spray.  
P220 - Keep/Store away from clothing/combustible materials  
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
P234 - Keep only in original container

**Precautionary Statements - Response**

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTER or doctor  
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower  
P363 - Wash contaminated clothing before reuse  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P312 - Call a POISON CENTER or doctor if you feel unwell  
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
P370 + P378 - In case of fire: Use water for extinction

**Precautionary Statements - Storage**

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
P411 + P235 - Store at temperatures not exceeding 30 °C/ 86 °F. Keep cool  
P410 - Protect from sunlight.

**Hazards not otherwise classified (HNOC)**

No hazards not otherwise classified were identified.

**Other Information**

Do not store on wooden pallets. Avoid damage to containers. In case of decomposition: isolate container, douse container with cool water and dilute with large volumes of water. In case of leak or spill: Stop leak if this can be done without risk. Flush area with large quantities of water. Undiluted material should not be allowed to enter confined spaces. Risk of decomposition by heat or by contact with incompatible materials.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No	Weight %
Water	7732-18-5	30 - 44
Acetic Acid	64-19-7	33 - 38
Peracetic Acid	79-21-0	15 - 17
Hydrogen Peroxide	7722-84-1	9-11

Synonyms are provided in Section 1.

### 4. FIRST AID MEASURES

- Eye Contact** In case of eye contact, remove contact lenses and rinse immediately with plenty of water, also under the eyelids ,for at least 15 minutes. Call a physician immediately.
- Skin Contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician immediately.
- Inhalation** Move to fresh air. If breathing difficulty or discomfort occurs and persists, obtain medical attention. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
- Ingestion** Clean mouth with water and afterwards drink plenty of water. Do NOT induce vomiting. Call a physician or poison control center immediately.

#### Most important symptoms and effects, both acute and delayed

Liquid and mist are corrosive (causing burns); direct contact could cause irreversible damage to eyes including blindness and/or irreversible destruction of skin tissue.

Vapor/mist will irritate nose, throat and lungs but will usually subside when exposure ceases

#### Indication of immediate medical attention and special treatment needed, if necessary

This product can be corrosive to skin, eyes and mucous membranes. Consideration should be given to careful endoscopy as stomach or esophageal burns, perforations or strictures may occur. Careful gastric lavage with an endotracheal tube in place should be considered. Observation may be warranted. Treatment is controlled removal of exposure followed by symptomatic and supportive care.

### 5. FIRE-FIGHTING MEASURES

- Suitable Extinguishing Media** Water. Cool containers with flooding quantities of water until well after fire is out.
- Unsuitable extinguishing media** Chemical type extinguishers are not effective with peracetic acid or hydrogen peroxide.
- Specific Hazards Arising from the Chemical** Decomposes under fire conditions to release oxygen that intensifies the fire.
- Explosion data**
- |   |                |
|---|----------------|
| <b>Sensitivity to Mechanical Impact</b> | Not Available. |
| <b>Sensitivity to Static Discharge</b>  | Not Available. |

**Protective equipment and precautions for firefighters** Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Wear self-contained breathing apparatus and protective suit.

### 6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions** Isolate and post spill area. Remove all sources of ignition. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see Section 8.

**Environmental Precautions** Prevent material from entering into soil, ditches, sewers, waterways, and/or groundwater. See Section 12, Ecological Information for more detailed information.

**Methods for Containment** Control runoff and isolate discharged material for proper disposal. Do not allow material to enter storm or sanitary sewer system.

**Methods for cleaning up** Hydrogen peroxide is an ingredient in this product; completely submerge hydrogen peroxide contaminated clothing or other materials in water prior to drying. Residual hydrogen peroxide, if allowed to dry on combustible materials such as paper, fabrics, leather or wood can cause the material to ignite and result in a fire. Dispose of waste as indicated in Section 13.

## 7. HANDLING AND STORAGE

**Handling** Handle product only in closed system or provide appropriate exhaust ventilation. Drums - Empty as thoroughly as possible. Triple rinse drums before disposal. Avoid contamination; impurities accelerate decomposition. Never return product to original container.  
IBC (Tote) - IBC should be emptied as thoroughly as possible and recycled without rinsing.

**Storage** Do not stored near reducing agents, fuels or other non-compatible materials. Keep in a dry, cool and well-ventilated place. Keep at temperatures below 30°C. Higher temperatures will accelerate decomposition resulting in loss of assay. Keep away from direct sunlight. Keep away from heat and sources of ignition i.e., steam pipes, radiant heaters, hot air vents or welding sparks. Use first in, first out storage system. Do not double-stack. Containers must be vented.

**Incompatible products** Oxidizing agents; Strong reducing agents; Combustible materials; Heavy metals

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

### Exposure Guidelines .

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
Acetic Acid 64-19-7	STEL 15 ppm TWA: 10 ppm	TWA: 10 ppm TWA: 25 mg/m <sup>3</sup>	IDLH: 50 ppm TWA: 10 ppm TWA: 25 mg/m <sup>3</sup> STEL: 15 ppm STEL: 37 mg/m <sup>3</sup>	Mexico: TWA 10 ppm Mexico: TWA 25 mg/m <sup>3</sup> Mexico: STEL 15 ppm Mexico: STEL 37 mg/m <sup>3</sup>
Peracetic Acid 79-21-0	STEL 0.4 ppm	-	-	-
Hydrogen Peroxide 7722-84-1	TWA: 1 ppm	TWA: 1 ppm TWA: 1.4 mg/m <sup>3</sup>	IDLH: 75 ppm TWA: 1 ppm TWA: 1.4 mg/m <sup>3</sup>	Mexico: TWA 1 ppm Mexico: TWA 1.5 mg/m <sup>3</sup> Mexico: STEL 2 ppm Mexico: STEL 3 mg/m <sup>3</sup>
Chemical name	British Columbia	Quebec	Ontario TWAEV	Alberta
Acetic Acid 64-19-7	TWA: 10 ppm STEL: 15 ppm	TWA: 10 ppm TWA: 25 mg/m <sup>3</sup> STEL: 15 ppm STEL: 37 mg/m <sup>3</sup>	TWA: 10 ppm  STEL: 15 ppm	TWA: 10 ppm TWA: 25 mg/m <sup>3</sup> STEL: 15 ppm STEL: 37 mg/m <sup>3</sup>
Hydrogen Peroxide 7722-84-1	TWA: 1 ppm	TWA: 1 ppm TWA: 1.4 mg/m <sup>3</sup>	TWA: 1 ppm	TWA: 1 ppm TWA: 1.4 mg/m <sup>3</sup>

### Appropriate engineering controls

**Engineering measures** Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

**Individual protection measures, such as personal protective equipment**

<b>Eye/Face Protection</b>	Tightly fitting safety goggles. Face-shield.
<b>Skin and Body Protection</b>	Rubber or neoprene footwear. Impervious clothing materials such as rubber, neoprene, nitrile or polyvinyl chloride. Wear liquid proof rubber or neoprene gloves. Hydrogen peroxide is an ingredient in this product; completely submerge hydrogen peroxide contaminated clothing or other materials in water prior to drying. Residual hydrogen peroxide, if allowed to dry on combustible materials such as paper, fabrics, leather or wood can cause the material to ignite and result in a fire.
<b>Hand Protection</b>	Rubber/latex/neoprene or other suitable chemical resistant gloves. Wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.
<b>Respiratory Protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
<b>Hygiene measures</b>	Clean water should be available for washing in case of eye or skin contamination. Remove and wash contaminated clothing before re-use. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Launder work clothing separately from regular household laundry.
<b>General information</b>	Protective engineering solutions should be implemented and in use before personal protective equipment is considered.

**9. PHYSICAL AND CHEMICAL PROPERTIES**
**Information on basic physical and chemical properties**

<b>Appearance</b>	Clear, colorless liquid
<b>Physical State</b>	Liquid
<b>Color</b>	Colorless
<b>Odor</b>	stinging, Pungent, vinegar-like
<b>Odor threshold</b>	No information available
<b>pH</b>	< 1 (1% solution = 2-3 @ 25°C) @ 25 °C (1% solution)
<b>Melting point/freezing point</b>	-49 °C
<b>Boiling Point/Range</b>	~109 °C / 228 °F
<b>Flash point</b>	80 °C Closed cup Open Cup - No measurable flash point up to 110°C Fire Point - No fire point. This material will not sustain a flame
<b>Evaporation Rate</b>	> 1 (n-butyl acetate=1)
<b>Flammability (solid, gas)</b>	Substance does not burn but will support combustion
<b>Flammability Limit in Air</b>	
<b>Upper flammability limit:</b>	
<b>Lower flammability limit:</b>	
<b>Vapor pressure</b>	22 mm Hg at 25°C
<b>Vapor density</b>	No information available
<b>Density</b>	9.42 g/mL @ 25 °C lb/gal
<b>Specific gravity</b>	1.13 @ 20 °C
<b>Water solubility</b>	completely soluble
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Auto-ignition temperature</b>	5 °C
<b>Decomposition temperature</b>	> 55 °C (SADT)
<b>Viscosity, kinematic</b>	No information available
<b>Viscosity, dynamic</b>	No information available
<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	Strong oxidizer
<b>Molecular weight</b>	No information available
<b>Bulk density</b>	Not applicable

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	Reactive and oxidizing agent. Organic peroxide.
<b>Chemical Stability</b>	Stable under recommended storage conditions. Contamination or heat could initiate decomposition.
<b>Possibility of Hazardous Reactions</b>	May produce explosive reactions with Acetic Anhydride.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Heat, flames and sparks. Temperatures above 30°C. Higher temperatures will accelerate decomposition resulting in loss of assay.
<b>Incompatible materials</b>	Oxidizing agents; Strong reducing agents; Combustible materials; Heavy metals.
<b>Hazardous Decomposition Products</b>	Acetic acid and oxygen that supports combustion.

## 11. TOXICOLOGICAL INFORMATION

### Product Information

<b>LD50 Oral</b>	LD50 Rat = 50 -500 mg/kg/bw (35% Peracetic acid) LD50 rat = 185-3622 mg/kg/bw (2.6-6.11% Peracetic acid) LD50 rat = 1026-1780 mg/kg/bw (15% Peracetic acid)
<b>LD50 Dermal</b>	LD50 Rat = 1957 mg/kg/bw (15% Peracetic acid) LD50 rat = 1147 mg/kg/bw (5% Peracetic acid) LD50 rat = >2000 mg/kg/bw (Peracetic acid 0.15%-0.89%)
<b>LC50 Inhalation</b>	C50 (4-hr) Rat = 76-189 mg/m <sup>3</sup> (15% Peracetic acid) LC50 (4-h) rat = 204 mg/m <sup>3</sup> (5% Peracetic acid)
<b>Serious eye damage/eye irritation Skin corrosion/irritation</b>	Corrosive. Risk of serious damage to eyes. Corrosive to skin. Severely irritating (rabbit).
<b>Sensitization</b>	Did not cause sensitization on laboratory animals.

### Information on toxicological effects

<b>Symptoms</b>	Liquid and mist are corrosive and can cause burns, direct contact could cause irreversible damage to eyes including blindness and/or irreversible destruction of skin tissue. Vapor/mist will irritate the nose, throat and lungs, but will usually subside when exposure ceases. The severity of the effects depends in the concentration and dose.
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### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Chronic toxicity</b>	Repeated inhalation of the mist may cause inflammation of the upper respiratory tract, chronic bronchitis and etching of the dental enamel.
<b>Carcinogenicity</b>	Did not show carcinogenic effects in animal experiments. Topical applications do not produce skin tumors. Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH).
<b>Mutagenicity</b>	This product is not recognized as mutagenic by Research Agencies. Did not show mutagenic effects in animal experiments.
<b>Reproductive toxicity</b>	This product is not recognized as reprotox by Research Agencies. No toxicity to reproduction in animal studies.
<b>STOT - single exposure STOT - repeated exposure Aspiration hazard</b>	May cause respiratory irritation. Not classified. No information available.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Ecotoxicity effects** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

<b>Peracetic Acid (79-21-0)</b>				
Active Ingredient(s)	Duration	Species	Value	Units
Peracetic Acid 15%	96 h LC50	Oncorhynchus mykiss (rainbow trout)	0.53	mg/L
Peracetic Acid 5%	96 h LC50	Bluegill sunfish	1.1	mg/L
Peracetic Acid	33 d NOEC	Brachydanio rerio	0.00225	mg/L
Peracetic Acid 5%	96 h LC50	Oncorhynchus mykiss (rainbow trout)	1.6	mg/L
Peracetic Acid 5%	48 h EC50	Daphnia magna	0.73	mg/L
Peracetic Acid 12.5%	48 h EC50	Mytilus edulis	0.27	mg/L
Peracetic Acid 15%	21 d NOEC	Daphnia magna	0.05	mg/L
Peracetic Acid 5%	72 h EC50	Selenastrum capricornutum	0.16	mg/L
Peracetic Acid 5%	120 h EC50	Selenastrum capricornutum	0.18	mg/L
Peracetic Acid 5%	72 h NOEC	Selenastrum capricornutum	0.061	mg/L
Peracetic Acid	3 h EC50	Respiration inhibition test (OECD 209)	5.1	mg/L

### Persistence and degradability

Peracetic acid is completely miscible with water. Aqueous solutions of peracetic acid hydrolyze to acetic acid and hydrogen peroxide. Product is biodegradable.

### Bioaccumulation

Based on its low octanol-water partition coefficient and its rapid degradation in the environment, this product is not bioaccumuable.

### Mobility

Peracetic acid released in the environment will partition almost exclusively (>99%) to the water compartment. Only a minor part (<1%) will remain in the atmosphere, where it is expected to undergo rapid decomposition with a half life of 22 minutes. The fate of peracetic acid in the environment is mainly determined by its degradation.

### Other Adverse Effects

None known.

## 13. DISPOSAL CONSIDERATIONS

### Waste disposal methods

This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance.

### US EPA Waste Number

D001 D002

### Contaminated Packaging

Do not rinse returnable containers or receptacles not intended for other uses. Non-returnable containers that held this material should be cleaned by triple-rinsing prior to recycle or disposal. Dispose of in accordance with local regulations. Empty remaining contents. Clean container with water.

## 14. TRANSPORT INFORMATION

### DOT

UN/ID no	UN3109
Proper Shipping Name	ORGANIC PEROXIDE TYPE F, LIQUID
Hazard class	5.2
Subsidiary class	8
Packing Group	II
Reportable Quantity (RQ)	Hazardous Substance/RQ: Not applicable

### TDG

UN/ID no	UN3109
Proper Shipping Name	ORGANIC PEROXIDE TYPE F, LIQUID
Hazard class	5.2
Subsidiary class	8
Packing Group	II

### ICAO/IATA

Air regulation permit shipment of peracetic acid in non-vented containers for Air Cargo Only aircraft, as well as for Passenger and Cargo aircraft. HOWEVER, all peracetic acid containers are vented and therefore, air shipments of peracetic acid are not permitted. IATA air regulations state that venting of packages containing oxidizing substances is not permitted for air transport.

### IMDG/IMO

UN/ID no	UN3109
Proper Shipping Name	ORGANIC PEROXIDE TYPE F, LIQUID
Hazard class	5.2
Subsidiary Hazard Class	8
Packing Group	II

### OTHER INFORMATION

Protect from physical damage. Material is shipped in 5 gal. (45 lb.) and 55 gal. (450 lb.) vented linear (not cross-linked) polyethylene containers, as well as linear (not cross-linked) polyethylene IBC's (330 gal.). Do not ship on wooden pallets.

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations

#### Clean Air Act (CAA) - Accidental Release Prevention

Peracetic acid is listed as a Regulated Toxic Substance at 40 CFR 68.130. Pursuant to the threshold determination provisions for mixtures at 40 CFR 68.155(b)(1), the partial pressure of peracetic acid in Oxymize® is less than 10 mm Hg at 25°C, and thus the product, as sold, is not subject to the threshold determination under the Risk Management Planning regulations

#### SARA 313

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

Chemical name	CAS-No	Weight %	SARA 313 - Threshold Values %
Peracetic Acid - 79-21-0	79-21-0	15 - 17	1.0

#### SARA 311/312 Hazard Categories

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



**Clean Water Act**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Acetic Acid 64-19-7	5000 lb			X

**CERCLA**

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

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	SARA RQ
Acetic Acid 64-19-7	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Peracetic Acid 79-21-0		500 lb	
Hydrogen Peroxide 7722-84-1		1000 lb	

Hydrogen Peroxide RQ is for concentrations of > 52% only

**California Cleaning Product Right to Know Act of 2017 (SB 258)**

This regulation applies to this product.

Chemical name	CAS-No	FUNCTION
Water	7732-18-5	Solvent
Acetic Acid	64-19-7	pH adjuster
Peracetic Acid	79-21-0	Antimicrobial
Hydrogen Peroxide	7722-84-1	Antimicrobial

**FIFRA INFORMATION**

**EPA Pesticide registration number 65402-9-6243**

*This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:*

**DANGER**

**MAY BE FATAL IF ABSORBED THROUGH SKIN**

*Corrosive, causes eye and skin damage. Harmful if swallowed.*

*Strong oxidizing agent.*

*This pesticide is toxic to birds, mammals, fish and aquatic invertebrates.*

**16. OTHER INFORMATION**

NFPA	Health Hazards 3	Flammability 1	Stability 2	Special Hazards OX
HMIS	Health Hazards 3	Flammability 1	Physical hazard 0	Special precautions H

NFPA/HMIS Ratings Legend

**Uniform Fire Code****Preparation date:**

Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

Special Hazards: OX = Oxidizer. Protection = H (Safety goggles, gloves, apron, the use of supplied air or SCBA respirator is required in lieu of a vapor cartridge respirator)

Organic Peroxide: Class 4--Liquid

04/07/17

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**End of Safety Data Sheet**