



Siloxycide[®] Safety Data Sheet

Issuing Date No data available

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Revision Number 3

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Siloxycide[®]

Other means of identification

Synonyms 480021

Recommended use of the chemical and restrictions on use

Recommended Use Disinfectant & General Biocidal Product (Non-Aerosol)

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Name Preserve International, A wholly-owned subsidiary of Neogen[®]

Supplier Address 944 Nandino Blvd.
Lexington, KY 40511
USA

Emergency telephone number CHEMTREC US & CANADA-1-800-424-9300, Outside US-+1-703-527-3887

302-454-8102

Company Emergency Phone
Number

2. HAZARDS IDENTIFICATION




Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Gases)	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1

GHS Label elements, including precautionary statements

Emergency Overview

Signal word	Danger	
Hazard Statements H272 May intensify fire H302 Harmful if swallowed H314 Causes severe skin burns and eye damage H332 Harmful if inhaled H335 May cause respiratory irritation		
		
GHS03	GHS05	GHS07
Appearance Colorless	Physical state Liquid	Odor Pungent

Precautionary Statements –General

Keep out of reach of children

Precautionary Statements-Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Avoid breathing dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

Do not breathe dust/fume/gas/mist/vapors/spray

Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician

Specific treatment (see supplemental first aid instructions on this label)

Eyes

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

Skin

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell
 Immediately call a POISON CENTER or doctor/physician

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

Other information**Interactions with Other Chemicals**

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Hazardous Ingredients

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Chemical Name	CAS No	Weight-%	Trade Secret
Hydrogen peroxide	7722-84-1	50	
Silver nitrate	7761-88-8	0.1	
Other ingredients		49.9	*

4. FIRST AID MEASURES

First aid measures**General Advice**

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. If threatening unconsciousness, position and transport in recovery position.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention/advice.

Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Seek immediate medical attention/advice.
Inhalation	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get medical attention immediately if symptoms occur.
Ingestion	Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

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

Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.

Uniform Fire Code

Corrosive: Other--Liquid
Toxic: Liquid
Oxidizer: Class 2--Liquid

Hazardous Combustion Products

Carbon monoxide
Carbon dioxide

Explosion Data

Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge No.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool endangered containers with water spray jet.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid breathing vapors or mists. Avoid generation of dust.

Other Information

Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions

Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Pick up and transfer to properly labeled containers. Soak up with inert absorbent material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists.

Conditions for safe storage, including any incompatibilities

Storage Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Store away from other materials.

Incompatible Products Acids. Bases. Oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrogen peroxide 7722-84-1	TWA: 1 ppm	TWA: 1 ppm TWA: 1.4 mg/m ³ (vacated) TWA: 1 ppm (vacated) TWA: 1.4 mg/m ³	IDLH: 75 ppm TWA: 1 ppm TWA: 1.4 mg/m ³

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Respiratory protection Self contained breathing apparatus If 1) ventilation insufficient in confined spaces/insufficient oxygen. 2) in case of large uncontrolled emissions 3) In all circumstances when the mask and cartridge do not give adequate protection. Short term: filter apparatus, special gas filter, NO-P3.
Use NIOSH approved or respiratory protection that conforms to international standards
Wear an approved full face air supplied respirator for excessive or unknown concentrations.
Selected chemical cartridges for respirators, i.e. OV, OV/AG, GME.

Hand protection Wear protective gloves of PVC, nitrile or butyle rubber. Take note of the information given by the producer concerning permeability and break through times as well as the specific

workplace conditions.

Eye protection

Chemical resistant goggles must be worn.

Skin and body protection

Protective suit, if splashes are likely to occur, rubber or PVC boots and apron.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. For environmental protection, remove and wash all contaminated protective equipment before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical state	Liquid	Odor	Pungent
Appearance	Colorless	Odor Threshold	No information available
Color	No information available		
<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH	<2	None known	
Melting / freezing point	No data available	None known	
Boiling point / boiling range	>100° C	None known	
Flash Point	Not applicable	None known	
Evaporation Rate	No data available	None known	
Flammability (solid, gas)	This product is not flammable	None known	
Flammability Limit in Air			
Upper flammability limit	No data available		
Lower flammability limit	No data available		
Vapor pressure	20 hPA 20°C	None known	
Vapor density	No data available	None known	
Specific Gravity	1.23 g/cm ³	None known	
Water Solubility	Completely soluble	None known	
Solubility in other solvents	No data available	None known	
Partition coefficient: n-octanol/water	No data available	None known	
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
Kinematic viscosity	1 mPA*s 20 °C	None known	
Dynamic viscosity	No data available	None known	
Explosive properties	This product is not explosive		
Oxidizing properties	No data available		

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Excessive heat.

Incompatible materials

Acids. Bases. Oxidizing agents. Combustible substances

Hazardous Decomposition Products

Nitrous gases, carbon monoxide and carbon dioxide

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation

Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. May cause irritation of respiratory tract. Harmful by inhalation.

Eye contact

Causes burns. (based on components). Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes.

Skin contact

Corrosive. (based on components). Causes burns.

Ingestion

Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Product Mixture	= 3185mg/kg (Rat)	=>5000 mg/kg (Rat)	= 2.1 g/m ³ (Rat) 4 h

Information on toxicological effects

Symptoms

Erythema (skin redness). Burning. May cause blindness. Coughing and/ or wheezing.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization Non sensitizing.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydrogen peroxide 7722-84-1	A3	Group 3		

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic Toxicity No known effect based on information supplied. Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Carcinogenic potential is unknown.

Target Organ Effects Respiratory system. Eyes. Skin. Gastrointestinal tract (GI). Blood. Lungs.

Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)

1,602.00 mg/kg

ATEmix (inhalation-gas)

9,000.00 ppm (4 hr)

ATEmix (inhalation-dust/mist)

4.00 mg/l

ATEmix (inhalation-vapor)

22.00 ATEmix

Ecotoxicity

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Ceriodaphnia dubia (Water Flea)
Halosil HPC/Sanosil HWP	72h EC50: = 2.5 mg/L (Chlorella vulgaris) (hydrogen peroxide 50%)	96h LC50: = 16.4 mg/L (Pimephales promelas) 96 h LC50 =134 mg/L (Menidia beryllina) 96 h LC50 = 10.7 (Mysidopsis bahia)	96h LC50: 7.07 mg/L

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods	This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).
Contaminated Packaging	Dispose of contents/containers in accordance with local regulations.
US EPA Waste Number	D001

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
Hydrogen peroxide 7722-84-1	Toxic Corrosive Ignitable Reactive

14. TRANSPORT INFORMATION

DOT

UN-No.	UN2014
Proper Shipping Name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Hazard Class	5.1
Subsidiary Class	8
Packing Group	II
ERG No	140
Description	UN2014, HYDROGEN PEROXIDE, AQUEOUS SOLUTION, 5.1 (8), II

TDG

UN-No.	UN2014
Proper Shipping Name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Hazard Class	5.1
Subsidiary class	8
Packing Group	II
Description	UN2014, HYDROGEN PEROXIDE, AQUEOUS SOLUTION, 5.1 (8), II

MEX

UN-No.	UN2014
Proper Shipping Name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Hazard Class	5.1
Subsidiary class	8
Packing Group	II
Description	UN2014, HYDROGEN PEROXIDE, AQUEOUS SOLUTION, 5.1 (8), II

ICAO

Forbidden

IATA

Forbidden Not regulated

IMDG/IMO

UN-No.	UN2014
Proper Shipping Name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION

Hazard Class	5.1
Subsidiary class	8
Packing Group	II
EmS-No.	F-H, S-Q
Marine Pollutant	N/A
Description	UN2014, HYDROGEN PEROXIDE, AQUEOUS SOLUTION, 5.1 (8), II,

RID

UN-No.	UN2014
Proper Shipping Name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Hazard Class	5.1
Packing Group	II
Classification code	OC1
Description	UN2014, HYDROGEN PEROXIDE, AQUEOUS SOLUTION, 5.1 (8), II
ADR/RID-Labels	8

ADR

UN-No.	UN2014
Proper Shipping Name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Hazard Class	5.1
Packing Group	II
Classification code	OC1
Tunnel restriction code	(E)
Description	UN2014, HYDROGEN PEROXIDE, AQUEOUS SOLUTION, 5.1 (8), II
ADR/RID-Labels	5.1 8

ADN

UN-No.	UN2014
Proper Shipping Name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Hazard Class	5.1
Packing Group	II
Classification code	OC1
Description	UN2014, HYDROGEN PEROXIDE, AQUEOUS SOLUTION, 5.1 (8), II
Hazard Labels	5.1 + 8
Limited Quantity	1 L

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	All components are listed either on the DSL or NDSL.
IECSC	-

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

EPA Registration # 84526-2

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

SARA 311/312 Hazard Categories

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

CWA (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
Hydrogen peroxide 7722-84-1	X	X	X	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	RQ
Hydrogen peroxide 7722-84-1		1000 lb (>52%)	

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Hydrogen peroxide 7722-84-1	X	X	X	X	
Supplier Trade Secret	X	X	X	X	

International Regulations**Mexico****National occupational exposure limits**

Component	Carcinogen Status	Exposure Limits
Hydrogen peroxide 7722-84-1 (50%)	A3	Mexico: TWA 1 ppm Mexico: TWA 1.5 mg/m ³ Mexico: STEL 2 ppm Mexico: STEL 3 mg/m ³

Mexico - Occupational Exposure Limits - Carcinogens

A3 - Confirmed Animal Carcinogen

16. OTHER INFORMATION

NFPA	Health Hazards 3	Flammability 0	Instability 1	Physical and Chemical Hazards - Personal Protection X
HMIS	Health Hazards 3	Flammability 0	Physical Hazard 1	

Prepared By Halosil International

Revision Date 08-Oct-2018
Revision Note Rev 5

Disclaimer

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

End of Safety Data Sheet