


SAFETY DATA SHEET


Date Entered: 2/1/06 Modified: 7/7/21

1 PRODUCT AND COMPANY IDENTIFICATION English

- (1.) Trade Name: **SERUM 1000**
- (2.) Chemical Name: 20% Hydrogen Peroxide Formulated (3.) Product Number: 5-215-05
- (4.) Chemical Family: Organic cleaner for removing mold stains and odors, cleaning water damage, cleaning crime and trauma scenes, removing smoke odors from fire damaged structures and organic stain remover.
- (5.) Chemical Formula: Proprietary
- Manufacturer: Serum Products, LLC
1355 West Oak Commons Lane
Unit B
Marietta 30062 U.S.A.
+1 (678)-290-1880
- 
- (7.) Preparers Name: Bill Lyon Phone: +1 (678)-290-1880 U.S.A.
- (8.) **Emergency Contact Phone Numbers:** Medical: (678) 290-1880 Transportation: **(800) 535-5053**

2 HAZARDS IDENTIFICATION English

- (1.) Hazardous Classification: Liquid Oxidizer (2.) Signal Word: Danger
- (3.) Hazardous Statement: Oxidizer, harmful by inhalation, when in contact with combustible materials may cause fire. Could cause burns and severe eye damage
- (4.) Precautionary Labeling: Harmful or fatal if swallowed. Causes severe eye injury. Avoid contact with skin causes skin whitening and tingling. Do not ingest. Keep out of reach of children. Keep container tightly closed with original vented bungs or caps when not in use. Store container in cool dry areas. Store at temperatures below 100° F. Do not dispose of the unused portions into water ways, streams, rivers, estuaries and oceans. Do not reuse empty containers. Do not return unused amounts to original container.
- (5.) Description Other Hazards: N/A
- (6.) Unknown Toxicity: N/A



HAZARD CLASS
5.1

UN NUMBER
UN-2984

EMERGENCY PHONE
(800) 535-5053

3 COMPOSITION/INFORMATION ON INGREDIENTS

Note: the list of all hazardous substances or CERCLA greater 1% and carcinogens at 0.1% or greater.

Hazardous Substances

(1.) Ingredient: (2.) SARA (3.) Nota 313 (4.) CAS #: (5.) % range: (6.) PEL: (7.) LD50: (7.) TLV:

(1.) Ingredient:	(2.) SARA (3.) Nota 313	(4.) CAS #:	(5.) % range:	(6.) PEL:	(7.) LD50:	(7.) TLV:
Hydrogen Peroxide	No	7722-84-1	20.0%	n/d	2000mg/kg	n/d
Water	1	7732-18-5	78.3%	N/A	N/A	N/A

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Balance Nonhazardous

Note: 1.) Demineralized, DE-chemicalized FILTERED AND POLISHED H2O

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FIRST AID MEASURES

English

- (1.) Main entry routes into the body(s): _____ (2.) Eyes: X (3.) Skin: X (4.) Inhalation: X (5.) Ingestion: _____
- (6.) Acute Effects: _____
- (7.) Eyes: Rinse immediately with water for at least 15 minutes, lifting upper and lower eyelids intermittently while seeking immediate medical attention. Go immediately to the emergency room to receive treatment currently recommended.
- _____
- (8.) Skin: Mix a teaspoon of baking soda in 8 ounces of water and apply this solution to the affected area. Get medical attention if irritation occurs and/or persists.
- _____
- (9.) Inhalation: Remove to fresh air. If breathing difficulty or discomfort occurs and/or persists, contact a physician. If breathing has stopped, administer artificial respiration.
- _____
- (10.) Ingestion: DO NOT induce vomiting. Loosen tight clothing. Give victim plenty of water to dilute stomach contents. Seek immediate medical attention.
- _____
- (11.) Acute Symptoms: Risk of permanent corneal injury and possible blindness if splashed in the eyes
- _____
- (12.) Note to Physician:
- Hydrogen peroxide concentrations in this product is a strong oxidant. Direct contact with eyes may cause corneal damage especially if not washed immediately. Careful ophthalmologic assessment and the possibility of local corticosteroid therapy is recommended to be considered. Because the likelihood of corrosive effects on the GI tract after ingestion and the unlikelihood of systemic effects, attempts to pass the stomach through the induction of emesis or gastric lavage should be avoided. There is a remote possibility, however, that a nasogastric or orogastric tube may be necessary to reduce the severe distension due to gas formation.
- _____

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FIRE FIGHTING MEASURES

- (1.) Flammable Properties: THIS PRODUCT IS NOT flammable or combustible. It is a strong oxidant. Mixtures with combustible or flammable materials can ignite easily, burn fiercely or explode in closed containers.
- _____

Extinguishing media

- (2.) Suitable Extinguishing Media:

SMALL FIRE: Use water only. Use large amounts of water and spray to cool containers. Evacuate the area. **LARGE FIRE:** Use water only. Evacuate immediately and close off surrounding area. Use self-contained breathing apparatus, pressure demand, MSHA / NIOSH and full protective gear. **TRANSPORTATION:** Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can safely. ALWAYS stay away from the ends of tanks. Flood fire area with water from a distance. Cool containers with flooding quantities of water until well after the fire is out. For massive fire, fight fire from maximum distance or use remote hoses and/or monitors. If this is not possible, withdraw from area and let it burn.

- (3.) Unsuitable extinguishing media:

Do not use dry chemicals, CO₂, Halon, foam or fire blanket

Protection of Fire Fighters

- (4.) Protective Equipment:

A self contained / breathing full protective gear should be worn in fire conditions

- (5.) Specific Hazards:

Oxidizer - Keep away from flammable and combustible materials. Residual hydrogen peroxide that is allowed to dry on organic materials such as paper, cotton fabrics, leather or other combustible materials may cause the material to ignite and cause fire. Runoff may create a risk of fire or explosion. Hydrogen peroxide decomposes on heating to produce oxygen gas, steam and heat.

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ACCIDENTAL RELEASE MEASURES

English

- (1.) Personal Precautions: In case of large spills, follow all procedures in emergency response guide
- (2.) Environmental Precautions: **SMALL SPILL:** Do not use combustible absorbents . Contain spill with non-combustible material like vermiculite, sand or earth. If material is spilled on the floor of wood or other combustible material , flush with plenty of water. If material is spilled on the floor or ground not fuel , allow the material to break down.
LARGE SPILL: Stop leak immediately and plug floor drains. Turn off all power in the area of the spill. Turn on fans if available. Put on appropriate personal protective equipment to protect all those involved in the cleanup. Use a water- resistant suit with hood and booties, gloves and chemical resistant boots , full face respirators with appropriate filters. Do not use combustible absorbents . Avoid contact with combustible materials such as paper, oil and clothing. Dike far ahead of the solution to contain for disposal . If inside: Evacuate immediately close surroundings . Contact your local fire department and notify the appropriate authorities.
- (3.) Waste Disposal Method: This product may be diluted with water and held until degraded. The use of sodium bicarbonate accelerate the decontamination process. Solution should be neutralized to pH 7.0. Follow local, state and federal regulations for disposal.

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HANDLING AND STORAGE

- (1.) Storage: Store containers in a cool place out of direct sunlight and away from combustible materials. Store at temperatures below 37.7°C or 100°F. Store in original vented container. Do not mix with other chemicals.
- (2.) Handling: Use full face shield, impervious clothing, such as PVC, etc, and neoprene gloves and shoes. Avoid cotton, wool and leather. Avoid excessive heat and pollution. Contamination may cause decomposition and generation of oxygen gas which could lead to high pressures and possible rupture of the container. Hydrogen peroxide should be stored only in vented containers and transferred in the prescribed manner. Never return unused product to original container, empty drums should be triple rinsed with water before discarding. Utensils used for handling this product should only be made of glass, stainless steel, aluminum or plastic.
- (3.) Precautionary Labeling: Harmful or fatal if swallowed. Causes severe eye injury. Avoid contact with skin causes skin whitening and tingling. Do not ingest. Keep out of reach of children. Keep container tightly closed with original vented bungs or caps when not in use. Store container in cool dry areas. Store at temperatures below 100° F. Do not dispose of the unused portions into water ways, streams, rivers, estuaries and oceans. Do not reuse empty containers. Do not return unused amounts to original container.

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Exposure Controls/Personal Protection

- (1.) **Ventilation:** (2.) Local Exhaust: (3.) General Exhaust: (4.) None Required: _____
- (5.) **Personal Protection Equipment:**
(6.) **Respirator Type:** (7.) Full Face Respirator: (8.) Half Face Respirator: _____ (9.) Dust Particle Filter: _____
- Note: **Spraying In Confined Areas:** use 3M full face respirator with 60926 or equivalent cartridges (Organic Vapor / Acid Gas/P100 filter, 3MR600923). **Spraying 100 sq.ft. or less:** use half face respirator with above filters and chemical splash goggles. **While HEPA vacuuming:** use full face respirator with above filters because of residual peroxide evaporating could irritate eyes until hydrogen peroxide component is completely dry.
- (10.) **Gloves:** (11.) Natural rubber: _____ (12.) Plastic: (13.) Nitril: (14.) Neoprene: (15.) Butyl: _____
(16.) Other: _____
- (17.) **Eye Protection:** (18.) Glasses With Side Shields: _____ (19.) Full Face Shield: _____ (20.) Chemical Splash Goggles:
(21.) Other: Full-face respirator when product is sprayed in confined areas

(22.) **Symbols Of PPE Required:**



CHEMICAL NAME:	ACGIH	OSHA
Hydrogen Peroxide	1 ppm (TWA)	1 ppm (PEL), 1.4 mg/m3 (PEL)

(23.) **Engineering Controls:**

Area to be treated should be isolated and contained from any other part of the structure with negative air ventilation employed to minimize the build up of vapors and mists of hydrogen peroxide in the contained area. Negative air ventilation should run through out the spraying of this product and during the HEPA vacuuming step. Turn negative air ventilation off for surface testing. Turn on HEPA air scrubbers to prepare for air testing. The number of scrubbers and length of time to run them should be obtained from the

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PHYSICAL & CHEMICAL PROPERTIES

English

- (1.) Physical State: Liquid
- (2.) Appearance: Clear
- (3.) Odor: Slight
- (4.) Boiling Point: 212 °F 100 °C
- (5.) Freeze Point: 32 °F 0 °C
- (6.) Flash Point: No inflamable °F
- (7.) Specific Gravity: 1.06
- (8.) Density: 8.82 lbs./Gal.
- (9.) pH Neat: 3.2
- (10.) pH 1%: 3.2
- (11.) % Solids: 0.5%
- (12.) % Volatiles: 99.3%
- (13.) Solubility In Water: Complete
- (14.) Vapor Pressure: n/d
- (15.) Vapor Density: n/d
- (16.) Evaporation Rate: > 1 (butyl acetate = 1)
- (17.) VOC Less Exempt: 0.0
- (18.) VOC As Packaged: <1 mg. / L by the EPA 8260 method volatile organic purge and trap GC / MS
- (19.) Viscosity: 1.05

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CHEMICAL STABILITY & REACTIVITY INFORMATION

- (1.) Thermal Stability: Stable
- (2.) Chemical Stability: Stable
- (3.) Condition To Avoid: Heat over 100 degrees F or 37.8 degrees C, non-ventilated containers
- (4.) Hazardous Decomposition Products: Oxygen, steam and heat
- (5.) Hazardous Polymerization: (A) May Occur: (B) Will not occur: X
- (6.) Materials To Avoid: Materials with high pH, iron, salts, organic compounds, reducing agents, dust and debris, combustible materials
- (7.) Corrosive Action On Materials: Oxidizes the surface of iron, copper and zinc. No challenge to their integrity
- (8.) Avoid: DANGER, when cold fogging. Remove or turn off all ignition sources such as pilot lights, stop electric motors, while fogging, electric heaters, gas heaters and anything else that could ignite the oxygen generated by aerosolization of this product.

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TOXICOLOGICAL INFORMATION

- (1.) Routs(s) of entry into the body: (2.) Eyes: X (3.) Skin: X (4.) Inhalation: X (5.) Ingestion:
- (2.) Eyes: Contact with the eyes from this product could result into severe damage and possibly blindness.
- (3.) Inhalation: Short term: difficulty in breathing with nausea. Long term: Asphyxiation could occur.
- (4.) Skin: **Incidental contact:** will cause skin to turn white and tingle. The white condition will last 30 to 60 minutes. **Long Term Contact:** may cause blistering and skin damage.
- (5.) Ingestion: Harmful if swallowed. Large exposure could be fatal.
- (6.) Toxicity Data: Toxicity depends on length of time exposed, concentration of exposure and PPE controls in place at the time of exposure.

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(7.) Summary Of Health Effects:

SKIN: Immediate burning and tingling of the skin rarely possible blistering, skin turns white when in contact with the liquid. No long-term damage to the epidermis or dermis expected. The symptoms disappear within 30 to 60 minutes. No expected long-term damage.

EYES: hydrogen peroxide can cause permanent corneal damage resulting in severe damage and possibly blindness.

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ECOLOGICAL INFORMATION

English

(1.) Environment:

This product is harmless to the environment. It breaks down into water and oxygen. In fact, this product would be good for most of the vegetation as it releases oxygen into the soil as it degrades. When used indoors, it degrades rapidly into water and oxygen, leaving behind nothing toxic to humans. The non-active (less than .005% by weight of the product) is surfactant and is classified as GRAS (generally regarded as safe) by the U.S. Environmental Protection Agency (EPA).

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DISPOSAL CONSIDERATIONS

(1.) Waste Disposal:

This product can be neutralized with two table spoons of baking soda or soda ash dissolved in one liter of water. Dispose of following federal, state and local laws.

(2.) Legislation:

N/D

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TRANSPORTATION INFORMATION

(1.) Indicate country agency/regulator that specifies requirements: U.S.A.-DOT

(2.) PROPER SHIPPING DESCRIPTION:

5 GALLON CONTAINERS OR MORE PROPER SHIPPING DESCRIPTION



UN2984, Hydrogen peroxide, aqueous solution with not less than 8%, but less than 20%, (stabilized as necessary), 5.1, PG III, ERG#60, Item Name: Serum 1000, Item Number: 5-215-05, Container: Pail, NMFC:48580-03

4 X 1 GALLON CONTAINERS OR LESS LIMITED QUANTITY PROPER SHIPPING DESCRIPTION



Compounds, Cleaning, Liquid, LIMITED QUANTITY, Item Name: Serum 1000, Item Number: 5-215-04, Container: Case, NMFC:48580-03

(3.) Hazard Class: 5.1, (4.) Hazard Number: UN2984, (5.) HazChem Code Number: 15.5.1, 15.19.6

(6.) Packaging Group: PG III, (7.) Emergency Response Code: ERG#60,

(8.) Labels Required: Oxidizer (9.) Other Requirements: This product must be in containers that have vented closures or container may swell and rupture violently.

(10.) Note: Product heated to or above 180°F (82.2°C) will produce large amounts of pure oxygen to possibly create an explosive condition. **DO NOT SEND THIS PRODUCT BY AIR. - SHIP GROUND ONLY**

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REGULATORY INFORMATION

English

(1.) Poison Schedule:

A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP)

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OTHER INFORMATION

(1.) Additional Information:

ACRONYMS :

ADB -Air Dry Basis

BEI - Biological Exposure Index (s)

CAS # - Chemical Abstract Service number - used to uniquely identify chemical compounds

CNS - Central Nervous System

IARC - International Agency for Research on Cancer

M - moles per liter concentration unit

mg/m³ - Milligrams per cubic meter

NOS - Not specified

pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (very alkaline)

ppm = parts per million

TWA / ES - Time Weighted Average or Exposure Standard .

IBC Code - International Bulk Chemical Code

IMDG - International Maritime Dangerous Goods Code

HEALTH EFFECTS OF EXPOSURE :

Note that the effects of exposure to this product will depend on several factors including : the frequency and duration of use ; amount used ; effectiveness of control measures ; protective equipment used and method of application . Since it is impractical to prepare a Chem Alert report which would encompass all possible scenarios , it is anticipated that users assess the risks and apply control methods where appropriate .

(2) Recommendations:

The recommendation for protective equipment contained within this Chem Alert report is provided as a guide only . Factors such as method of application, working environment , quantity used , product concentration and the availability of engineering controls should be considered before making the final selection of personal protective equipment .

COLOR RATING SYSTEM : All Chem Alert reports is rated green, amber or red for the sole purpose of providing users with a quick and easy way to determine the dangerousness of a product. Safe handling recommendations are provided in the Chem Alert reports so as to clearly identify how users can control the hazards and hence reduce the risk (or likelihood) of adverse effects. As a general guideline , rated Green indicates a low risk , a rating of amber indicates a moderate degree of risk and red indicates a high risk.

While all due care has been taken by Serum Products in the preparation of the Color Rating System , intended as a guide only and Serum makes no warranty regarding the accuracy of the color classification system . Serum accepts no responsibility or liability for acts or omissions of any person in reliance on the color classification system .

(3) Report Status:

This document has been prepared by the product's manufacturer and serves as the manufacturer's safety data sheet (SDS) .

It is based on information which has been provided by or obtained from other third party sources and is believed to represent the current state of knowledge about the safety measures and appropriate management for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from Serum Products .

While Serum Products has taken due care to include up-to-date information in this SDS it makes no warranty as to the accuracy or completeness. Serum Products will accept no responsibility for any loss , injury or damage (including consequential loss) suffered or incurred by any person as a result of their reliance on the information contained in this SDS

Chemical Alert Color: **GREEN**

Manufacturer:

Serum Products, LLC
1355 West Oak Commons Lane
Marietta, GA 30062
(678) 290-1880
info@serumsystems.com

SERUM 1000

Reorder Number: 5-215-05

SDS Date: 7/7/21 End Report

n/d = Not Determined, n/a = Not Applicable