PURITAN PRODUCTS

Effective Date: 04/01/15
Replaces Revision: 01/01/13

NON-EMERGENCY TELEPHONE
610-866-4225

24-HOUR CHEMTREC EMERGENCY TELEPHONE
800-424-9300

SDS – SAFETY DATA SHEET

1. Identification

Product Identifier: HYDROGEN PEROXIDE 8 - 19%
Synonyms: Peroxide, 100 Volume Peroxide, Hydrogen Dioxide Solution, Hydrogen Peroxide – Unstabilized
Chemical Formula: H2O2
Recommended Use of the Chemical and Restrictions On Use: Laboratory Reagent
Manufacturer / Supplier: Puritan Products; 2290 Avenue A, Bethlehem, PA 18017 **Phone:** 610-866-4225
Emergency Phone Number: 24-Hour Chemtrec Emergency Telephone 800-424-9300

2. Hazard(s) Identification

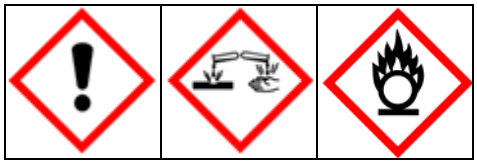
Classification of the Substance or Mixture:
Oxidizing liquids (Category 1)
Acute toxicity, Oral (Category 4)
Acute toxicity, Inhalation (Category 5)
Skin corrosion (Category 1A)
Serious eye damage (Category 1)
Acute aquatic toxicity (Category 3)

Risk Phrases:
Symbol: O, C
R5: Heating may cause an explosion.
R8: Contact with combustible material may cause fire.
R20: Harmful by inhalation.
R22: Harmful if swallowed.
R35: Causes severe burns.

Label Elements:

Trade Name: HYDROGEN PEROXIDE 8 - 19%

Signal Word: Danger



Hazard Statements:
H271: May cause fire or explosion; strong oxidizer.
H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H333: May be harmful if inhaled.
H402: Harmful to aquatic life.

Precautionary Statements:
P220: Keep / Store away from clothing / combustible materials.
P280: Wear protective gloves / protective clothing / eye protection / face protection.
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 / physician.

3. Composition / Information on Ingredients

CAS Number: 7722-84-1
EC Number: 231-765-0
Index Number: 008-003-00-9
Molecular Weight: 34.01 g/mol

Ingredient	CAS No.	EC Number	Percent	Hazardous	Chemical Characterization
Hydrogen Peroxide	7722-84-1	231-765-0	8 - 19%	Yes	Substance
Water	7732-18-5	231-791-2	81 - 92%	No	Mixture

4. First-aid Measures

In all cases, immediately call a POISON CENTER or doctor / physician.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give Oxygen. Get medical attention immediately.

Ingestion: DO NOT INDUCE VOMITING! Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. . If allowed to dry on clothing, evaporation leads to concentration and increased possibility of ignition. Call a physician.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Note to Physician: Pulmonary edema may be delayed for 24 to 72 hours; keep under observation. Gastric lavage may be necessary if swallowed. Analysis of body fluids (particularly gastric aspirates) using the titanium chloride reaction, if done immediately, will reveal peroxides.

5. Fire-fighting Measures

Fire: Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Increases the flammability of combustible, organic and readily oxidizable materials.

Explosion: Contact with oxidizable substances may cause extremely violent combustion. Drying of concentrated Hydrogen Peroxide on clothing or other combustible materials may cause fire or explosion. Sealed containers may rupture when heated.

Fire Extinguishing Media: Water spray may be used to keep fire exposed containers cool. Water spray will also reduce fume and irritant gases.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: CAUTION! Caustic material. Causes fires with organic material. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Environmental Precautions and Methods and Materials for Containment and Cleaning Up:

Contain and recover liquid when possible. Do not return spilled material to original container.

Larger Spills: Dilute with a large amount of water and hold in a pond or dyked area until the peroxide decomposes followed by discharge into a suitable treatment system.

May be neutralized with sodium metabisulfite or sodium sulfite after diluting to 5 - 10% peroxide.

Do not flush undiluted material to sewer. Do not let undiluted product enter drains. This oxidizing material can increase the flammability of adjacent combustible materials. Empty containers should be rinsed with water before discarding.

7. Handling and Storage

Precautions for Safe Handling and Conditions for Safe Storage, Including Any Incompatibilities: Store in a cool (< 35C,) well-ventilated dark area separated from combustible substances, reducing agents, strong bases, organics. Do not store on wooden shelves or floors. Suggest rotation of stock. Containers must be vented, but check periodically for bulging containers which can burst from pressure. Protect containers from physical damage, contamination, heat and incompatibles. Contamination from any source (dust, metals) may cause rapid decomposition with generation of large quantities of Oxygen gas and high pressures. Rinse empty containers thoroughly with clean water. Glass, polyethylene, stainless steel and aluminum are recommended materials for storage containers. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

8. Exposure Controls / Personal Protection

Airborne Exposure Limits:
OSHA Permissible Exposure Limit (PEL): 1 ppm (TWA)
ACGIH Threshold Limit Value (TLV): 1 ppm (TWA,) A3: Animal carcinogen

Ventilation System: A system of local and / or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved): If the exposure limit is exceeded, wear a supplied air, full face piece respirator, air-lined hood, or full face piece self-contained breathing apparatus. This substance has unknown warning properties.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles and / or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance: Clear, colorless liquid
Odor: Slight acrid odor
Odor Threshold: Not determined
pH: 3.3

% Volatiles by volume @ 21C (70F): 100
Melting Point: -25C (-13F)
Boiling Point / Boiling Range: 108C (226F)
Flash Point: Not applicable
Evaporation Rate (BuAC=1): < 1
Flammability: Not applicable
Upper / Lower Flammability or Explosive Limits: Not applicable
Vapor Pressure (mm Hg): 25 @ 30C (86F)
Vapor Density (Air=1): 1.17
Relative Density: 1.110 g/cm3
Solubility: Infinitely soluble
Partition Coefficient: n-octanol / water: No data available
Auto-ignition Temperature: Not applicable
Decomposition Temperature: No data available
Viscosity: Slightly more viscous than water

10. Stability and Reactivity

Reactivity and / or Chemical Stability: Normally stable if uncontaminated, but slowly decomposes to release Oxygen. Unstable with heat, may result in dangerous pressures. A strong oxidizer, reacts violently upon contact with many organic substances, particularly textile and paper. Avoid light and keep in a closed but vented container to prevent evaporation (concentration) and contamination.

Possibility of Hazardous Reactions and Conditions to Avoid: Excessive heat, light, incompatibles, and contact with combustible or organic materials.

Incompatible Materials: Heat, reducing agents, organic materials, dirt, alkalis, rust, and many metals. Spontaneous combustion may occur on standing in contact with readily flammable materials.

Hazardous Decomposition Products: Decomposes to Water and Oxygen with rapid heat release. Use vented containers. The solution can decompose violently upon heating.

11. Toxicological Information

Emergency Overview: DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. CORROSIVE. CAUSES BURNS TO SKIN, EYES, AND RESPIRATORY TRACT. HARMFUL IF SWALLOWED OR INHALED.

Potential Health Effects:

Inhalation: Vapors are corrosive and irritating to the respiratory tract. Inhalation of mist may burn the mucous membrane of the nose and throat. In severe cases, exposures may result in pulmonary edema and death.

Ingestion: Corrosive and irritating to the mouth, throat, and abdomen. Large doses may cause symptoms of abdominal pain, vomiting, and diarrhea as well as blistering or tissue destruction. Stomach distention (due to rapid liberation of Oxygen,) and risk of stomach perforation, convulsions, pulmonary edema, coma, possible cerebral edema (fluid on the brain,) and death are possible.

Skin Contact: Corrosive! Can cause redness, pain, and severe skin burns.

Eye Contact: Corrosive! Vapors are very corrosive and irritating to the eyes. Symptoms include pain, redness and blurred vision. Splashes can cause permanent tissue destruction.

Chronic Exposure: No information found.

Aggravation of Pre-existing Conditions: Vapors are very corrosive and irritating to the eyes. Symptoms include pain, redness and blurred vision. Splashes can cause permanent tissue destruction.

Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System:) No data available.

Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System:) No data available.

Numerical Measures of Toxicity: Cancer Lists: NTP Carcinogen

Ingredient	Known	Anticipated	IARC Category
Hydrogen Peroxide (7722-84-1)	No	No	3
Water (7732-18-5)	No	No	None

Acute Toxicity:
Oral LC50: 1518 mg/kg (rat)

12. Ecological Information

Ecotoxicity: Toxic to aquatic life.
EC50 Algae: 2.5 mg/l 72 hrs
EC50 Daphnia: 2.4 mg/l 48 hrs
LC50 Fish: 16.4 mg/l 96 hrs

Persistence and Degradability: Expected to be readily biodegradable.

Bioaccumulative Potential: No bioaccumulation expected.

Mobility in Soil: This material is a mobile liquid.

Other adverse effects: No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

UN Number: UN2984
UN Proper Shipping Name:
HYDROGEN PEROXIDE, AQUEOUS SOLUTION (WITH 8-19% HYDROGEN PEROXIDE)
Packing Group: III



DOT **IMDG** **IATA**

Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic)
Transport Hazard Class(es): 5.1

Maritime Transport IMDG/GGVSea
Transport Hazard Class(es): 5.1
Marine Pollutant: No

Air Transport ICAO-TI and IATA-DGR
Transport Hazard Class(es): 5.1

Transport in Bulk (According to Annex II of MARPOL 73/78 and the IBC Code:) Not applicable

Special Precautions for User: No additional information

15. Regulatory Information

Chemical Inventory Status – Part 1

Ingredient	TSCA	EC	Japan	Australia
Hydrogen Peroxide (7722-84-1)	Yes	Yes	Yes	Yes
Water (7732-18-5)	Yes	Yes	Yes	Yes

Chemical Inventory Status – Part 2

Ingredient	Korea	Canada		Phil.
		DSL	NDSL	
Hydrogen Peroxide (7722-84-1)	Yes	Yes	No	Yes
Water (7732-18-5)	Yes	Yes	No	Yes

Federal, State & International Regulations - Part 1

	SARA 302		SARA 313	
Ingredient	RQ	TPQ	List Chemical	Catg.
Hydrogen Peroxide (7722-84-1)	No	No	No	No
Water (7732-18-5)	No	No	No	No

Federal, State & International Regulations - Part 2

	RCRA		TSCA
Ingredient	CERCLA	261.33	8(d)
Hydrogen Peroxide (7722-84-1)	No	No	No
Water (7732-18-5)	No	No	No

Chemical Weapons Convention: No		**TSCA 12(b):** No		**CDTA:** No
SARA 311/312:	**Acute**: Yes	**Chronic:** No	**Fire:** Yes	**Pressure**: No
Reactivity: Yes		Mixture / Liquid		

Australian Hazchem Code: 2P

Poison Schedule: S6

16. Other Information

Effective Date: 04/01/15 – Changed GHS02 symbol GHS03
Replaces Revision: 01/01/13 – GHS Compliant, 01/09/08 – Initial Release

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