

#50304

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Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Material Name: Hydrogen Peroxide (3% solution)
Other Designations: Hydrogen Dioxide, Peroxide
Manufacturer's Name: Cumberland-Swan, Inc.
Manufacturer's Address: One Swan Drive
 Smyrna, TN 37167
Telephone Number (for information): 1-615-459-8900
Telephone Number (for emergencies): 1-615-459-8900
Date Prepared: November 1994

Section 2 - Composition / Information on Ingredients

Chemical	Chemical Formula	%	CAS#
Hydrogen Peroxide	H ₂ O ₂	3%	7722-84-1
Water	H ₂ O	97%	NA

Section 3 - Hazards Identification

Summary/Overview of Hazards

Colorless, odorless liquid that is slightly acidic. Hydrogen peroxide in this concentration is a mild oxidizer. Prolonged exposure to elevated concentrations of vapors may result in irritation of the eyes, nose and throat. Prolonged dermal exposure can result in mild skin irritation.

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Potential Routes of Exposure: Dermal contact, eye contact, ingestion
Target Organs: Eyes, skin, respiratory system
Symptoms of Overexposure (by route):
 Inhalation: Irritation of the eyes, nose and throat
 Ingestion: Irritation of the upper G.I. tract, possible distension of the esophagus or stomach
 Dermal Contact: Vesicles on skin, bleaching hair, general irritation of skin
Acute Effects: Irritation of skin as noted above
Chronic Effects: No data
Medical Conditions Aggravated By Long-Term Exposure: Pre-existing disorders of the skin may be exacerbated by exposure to hydrogen peroxide.

Degree of Hazard (NFPA System)

- 4 - Extreme
- 3 - High
- 2 - Moderate
- 1 - Slight
- 0 - Insignificant



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Section 4 - First Aid Measures

Eye Exposure:	Immediately flush eyes with copious amounts of water for at least 15 minutes while holding eyelids open. Seek immediate medical attention.
Skin Exposure:	Wash with water.
Ingestion:	Drink plenty of water or milk immediately to dilute. Do not induce vomiting. Seek immediate medical attention and/or call the Poison Control Center.
Inhalation:	Remove victim to fresh air and seek prompt medical attention.

Section 5 - Fire Fighting Measures

Extinguishing Media:	Use water fog, alcohol foam, dry chemical or CO ₂ .
Unusual Fire or Explosion Hazards:	Decomposition releases oxygen which may intensify fire (See also Section 9).
Recommended Fire-Fighting Procedures:	Extinguish fire using agent suitable for surrounding fire. Cool containers exposed to fire with flooding quantities of water.

Section 6 - Accidental Release Measures

Recommended Spill / Leak Response Procedures:

Large Spills:	Evacuate the area of unprotected personnel. Utilize appropriate level of personal protective equipment (see also Section 8). Contain source if it is safe to do so. Dike or otherwise confine spilled product. Keep away from open flames.
Small Spills:	Dilute with large amounts of water and, if possible, direct solution to diiked area and hold until decomposed. Dispose in accordance with local environmental regulations. Take up with absorbent material and place in non-leaking container; seal tightly. Dispose of absorbent.

Section 7 - Handling and Storage

Storage Requirements:	Store in tightly closed containers in a cool, dry, well-ventilated area away from heat and other possible ignition sources, including incompatible materials. (See also Section 10.)
Recommended Handling Precautions:	Maintain appropriate class(es) of fire extinguishers nearby in case of fire.

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Section 8 - Exposure Controls / Personal Protection

Applicable Exposure Limits:

OSHA PEL

1 ppm

OSHA STEL

N/A

OSHA Ceiling

N/A

IDLH

75 ppm

Recommended Engineering Controls:

Use ventilation equipment as necessary.

Recommended Administrative Controls:

Train employees on the hazards of hydrogen peroxide.

Recommended Personal Protective Equipment (PPE):

Wear chemical goggles where the threat of exposure exists. Gloves should be worn if the user has sensitive skin, but are otherwise unnecessary. Eye wash fountains should be provided for personnel in areas where eye exposure is possible.

Recommended Hygiene Practices:

Clean PPE and work clothing contaminated with hydrogen peroxide prior to reuse.

Section 9 - Physical and Chemical Properties

Appearance:	Colorless liquid	Freezing Point:	<0°C	Autoignition Temperature:	No data
Odor:	Slightly sharp	Water Solubility:	Miscible	Lower Explosive Limit (LEL):	No data
Odor Threshold:	No data	Molecular Weight:	18.5 (approx.)	Upper Explosive Limit (UEL):	No data
Vapor Pressure:	10.1 mm	Specific Gravity:	1.00	Vapor Density (air = 1):	0.63 (approx.)
Boiling Point:	214°F	Flash Point:	>200°F		

Section 10 - Stability and Reactivity

Stability:

Slightly unstable

Polymerization:

Will not occur

Chemical Incompatibilities:

Hydrogen peroxide in greater concentrations is incompatible with reducing agents, rust, dirt, organic materials.

Conditions to Avoid:

Heat, sparks, open flame, contact with incompatible materials.

Hazardous Products of Decomposition:

Decomposition releases oxygen which may intensify fire.

Section 11 - Toxicological Information

LD₅₀ (for 90% H₂O₂):

4060 mg/kg (dermal-rat)

LC₅₀ (for 90% H₂O₂):2000 mg/m³ (inhalation-rat [4 hr])LC₅₀ (for 90% H₂O₂):

227 ppm (inhalation - mouse)

Carcinogenicity:

Not identified as a carcinogen by OSHA, IARC, or NTP.

Mutagenicity:

Not indicated

Reproductive Effects:

Not indicated

Material Safety Data Sheet (continued)

Section 12 - Ecological Information

Environmental Mobility: Highly mobile
Environmental Persistence: Should be removed readily from soils and water.
Freshwater Acute Criteria: Not found
Freshwater Chronic Criteria: Not found
Bioconcentration Factor (BCF): Not found

Section 13 - Disposal Considerations

EPA Waste Codes: Not found
Recommended Disposal Methods/Technologies: Consult applicable state and federal regulations.

Section 14 - Transport Information

DOT Shipping Name: Non-Regulated Material (in concentrations < 8%) **DOT Packing Group:** N/A
DOT Hazard Class: N/A **DOT Label:** N/A
I.D. #: N/A

Section 15 - Regulatory Information

EPA Designations:
Hazardous Waste (RCRA): No
Hazardous Substance (CERCLA): No
Reportable Quantity (RQ): N/A
Extremely Hazardous Substance (SARA-302): No
Threshold Planning Quantity (TPO): 10,000 lbs. (default)
Toxic Chemical (SARA-313): No
Hazardous Air Pollutant (CAA): No

Section 16 - Other Information

Prepared By: EMPE, Inc.
Sources of Information: 29 CFR 1910.1000; NIOSH Pocket Guide to Chemical Hazards (1990); Hawley's Condensed Chemical Dictionary - 11th Edition; Sax's Dangerous Properties of Industrial Materials - 6th Edition; EPA Title III List of Lists (1994); EPA Quality Criteria for Water (1986); EPA Superfund Public Health Evaluation Manual (1986); 49 CFR 172; NFPA Guide to Hazardous Materials - 10th Edition; 3M Respirator Selection Guide (1992); NFPA Guide to Hazardous Materials - 10th Edition; NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards (1978); 40 CFR 261.
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