

MATERIAL SAFETY DATA SHET

OXY SAFE

MANUFACTURE INDENTIFICATION

Manufacturer: Energy Mizer
294 Edwardia dr.
Greensboro, NC 27409
336-294-1607

Emergency Contact Number: 1-800-627-5634

1 PRODUCT IDENTIFICATIOJN

PRODUCT NAME: OXY SAFE
CHEMICAL FAMILY: Peroxide
CHEMICAL FORUMLA: H2O2
CHEMICAL NAME: Hydrogen Peroxide Solution, 25%
Product Use: Laundry Chemical

CHEMICAL NAME: Hydrogen Peroxide Solution, 25%

Table with 4 columns: Ingredient Name, CAS Registry Number, Typical Wt. %, OSHA. Rows include Hydrogen peroxide (25%) and Walter (75%).

The substance(s) marked with a "Y" in the OSHA column, are identified as hazardous chemicals according to the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200)

This material is classified as hazardous under Federal OSHA regulation. The components of this product are all on the TSCA Inventory list.

3 HAZARDS IDENTIFICATION

Emergency Overview

Water white liquid, with a slight odor.

- DANGER
CAUSES EYE BURNS. MAY CAUSE BLINDNESS.
CAUSES SKIN BURNS.
CAUSES RESPIRATORY TRACT BURNS.
HARMFUL IF SWALLOWED
STRONG OXIDIZER
CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE OR EXPLOSIVE DECOMPOSTION.

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. Based on single exposure animal tests, it is considered moderately toxic if swallowed, practically non-toxic if absorbed through skin, slightly toxic if inhaled, and corrosive to eyes and skin.

4 FIRST AID MEASURES

- IF IN EYES: immediately flush with plenty of water for at least 15 minutes. Get medical attention.
IF ON SKIN: immediately flush with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Destroy contaminated shoes.
IF SWALLOWED: DO NOT induce vomiting. Give water to drink. Get medical attention immediately.
NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. IF INHALED: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

5. FIRE FIGHTING MEASURES

Fire and Explosive Properties

Auto-Ignition Temperature NA
Flash Point None
Flash Point Method Flammable Limits- Upper NA
Lower NA

Extinguishing Media

Use water spray, water fog.

Fire Fighting Instructions

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

Fire and Explosion Hazards

Solutions above 65% are especially hazardous, as they do not contain enough water to remove the heat of decomposition by evaporation. Avoid breathing fumes from fire-exposed material.

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## 6 ACCIDENTAL RELEASE MEASURES

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### In Case of Spill or Leak

Stop the leak, if possible. Ventilate the space involved. Flush with plenty of water. Combustible materials exposed to hydrogen peroxide should be rinsed immediately with large amounts of water to ensure that all the hydrogen peroxide is removed. Residual hydrogen peroxide, which is allowed to dry on organic materials such as paper, fabrics, cotton, leather, wood, or other combustibles, can cause the material to ignite and result in a fire. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

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## 7 HANDLING AND STORAGE

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### Handling

Do not get in eyes, on skin or on clothing. Do not breathe mist. Do not taste or swallow. Wash thoroughly after handling. Use only with adequate ventilation. Avoid contamination. Keep container closed.

### Storage Store

Separate from acids, alkalis, reducing agents, combustibles.

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## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

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### Engineering Controls

Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation if necessary to control exposure levels below airborne exposure limit (see below). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

### Eye / Face Protection

Where there is potential for eye contact, wear a face shield, chemical goggles, and have eye-flushing equipment immediately available.

### Skin Protection

Neoprene, Polyvinyl chloride, Butyl rubber Gloves should be worn when handling this material. Wear chemical goggles, a face shield, and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Remove contaminated clothing promptly and wash before reuse. Clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash skin thoroughly after handling.

**Respiratory Protection:** Avoid breathing vapor or mists. When airborne exposure limits are exceeded (see below), use NIOSH approved respiratory equipment appropriate to the material and/ or its components. Consult respiratory manufacture to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacture. For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full-face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR 1910.134

### Other Protective Equipment

Rubber boots with neoprene or PVC soles. Do NOT wear leather boots. Note: As the water, content of hydrogen peroxide evaporates, cotton, rayon, and wool fibers are particularly subject to spontaneous combustion. Where there is significant risk of sudden splash or spray, it is advised that an apron or rubber suit be worn. Any contaminated clothing, including gloves, shoes, aprons, coveralls, etc., should be removed immediately and thoroughly flushed with water to eliminate any traces of hydrogen peroxide before cleaning and reuse.

### Airborne Exposure Guidelines for Ingredients

Exposure Limit	Value
Hydrogen peroxide	
ACGIH TWA	- 1ppm. 1.4 mg. /m3
OSHA TWA PEL	- 1ppm. 1.4mg. /m3

Only those components with exposure limits are listed in this section. -Skin contact limits designated with a "Y" above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required. -ACGIH Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic reactions.

Rubber boots with neoprene or PVC soles. Do NOT wear leather boots. Note: As the water, content of hydrogen peroxide evaporates, cotton, rayon, and wool fibers are particularly subject to spontaneous combustion. Where there is significant risk of sudden splash or spray, it is advised that an apron or rubber suit be worn. Any contaminated clothing, including gloves, shoes, aprons, coveralls, etc., should be removed immediately and thoroughly flushed with water to eliminate any traces of hydrogen peroxide before cleaning and reuse.

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## 9 PHYSICAL AND CHEMICAL PROPERTIES

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Appearance/Odor	Water white liquid with slightly sharp odor	pH	NE
Specific Gravity	1.196 @ 20 C		
Vapor Pressure	18.3 @ 20 C		
Vapor Density	1.0		
Melting Point	NE		
Freezing Point	-52 C (-62 F)		
Boiling Point	114 C (237 F)		
Solubility in Water	Complete		
Percent Volatile	100%		
Molecular Weight	34.01		

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## 10 STABILITY AND REACTIVITY

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### Stability

This material is chemically stable under normal and anticipated storage and handling conditions.

### Incompatibility

Material decomposes with the potential to produce a rupture of un-vented closed containers. Contact with metals, metal ions, and organics wood, dust shavings, and dry vegetables may cause decomposition.

### Hazardous Decomposition Products

This material decomposes if contaminated, causing fire and possible explosions. Oxygen can be liberated at temperatures above ambient

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**11 TOXICOLOGICAL INFORMATION**  
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**Toxicological Information**

Data on this material and/or its components are summarized below. Hydrogen Peroxide Single exposure (acute) studies indicate that this material is moderately toxic if swallowed (rat LD50 805 mg/kg; 70% solution), practically non-toxic if absorbed through skin (rabbit LD50 >6,500 mg/kg; 70% solution), slightly toxic if inhaled (no mortality in rats at 170 mg/m<sup>3</sup> for 4 hours), and corrosive to rabbit eyes and skin. No skin allergy was observed in guinea pigs following repeated exposure. Solutions are commonly used for disinfecting wounds, bleaching hair or as a mouth wash and generally do not show adverse skin reactions. Accidental ingestion by children has resulted in death from lung edema, stomach erosions and gas distention and burns to the throat and esophagus. Eye and throat irritation and bleaching of hair have been reported by workers exposed to this material in the atmosphere. Several studies have been conducted by administering material in the drinking water of mice and rats. The primary findings were irritation of the gastric mucous. Repeated inhalation exposure of rats and mice caused nasal irritation without notable adverse effects on the lining of the upper respiratory system. Repeated inhalation exposure of dogs resulted in upper respiratory tract irritation and emphysematous changes in the lungs. Generally, long-term oral dosing caused no adverse effects other than erosion of the stomach lining from direct application of the test material. Several. Studies have shown an increase in gastrointestinal tract tumors in mice and rats following long-term exposure in the drinking water. Concentrations less than 1 % do not promote gastrointestinal tumors. The U.S. Federal Drug Administration has concluded that there is insufficient evidence of carcinogenicity and the International Agency for Research on Cancer (IARC) has concluded that this chemical is not classifiable as to its carcinogenicity to humans (Group 3). Genetic changes were observed in tests using bacteria and animal cells, but not in animals.

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**12 ECOLOGICAL INFORMATION**  
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**Ecotoxicological Information**

Data on this material and/or its components are summarized below.

**Hydrogen Peroxide**

This material is highly toxic to marine algae (LC50 0.85 mg/l), moderately toxic to Daphnia magna (EC50 7.7 mg/l) and Daphnia pulex (LC50 2.4 mg/l). It is slightly toxic to Coho-salmon (LC50 10 mg/l), channel catfish (LC50 37.4 mg/l), golden orfe (LC50 35 mg/l), fathead minnow (LC50 16.4 mg/l), snail (LC50 17.7 mg/l) and bacteria (EC50 30 mg/l).

**Chemical Fate Information**

No data are available

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**13 DISPOSAL CONSIDERATIONS**  
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**Waste Disposal**

Consult with environmental engineer or professional to determine if neutralization is appropriate and for handling procedures for residual materials. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations

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**14 TRANSPORT INFORMATION**  
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DOT Name: Hydrogen Peroxide, Aqueous Solution,  
DOT Technical Name:  
DOT Hazard Class: 5.1  
UN Number: UN 2014  
DOT Packing Group: PG II  
RQ:  
DOT Special Information: Subsidiary (8)  
Non-Bulk packages must have Class 5.1 and Class 8 labels.  
Bulk packages require Class 5.1 Oxidizer placards.  
Hazard Categories under Criteria of SARA Title III Rules (40 CFR Part 370)  
Immediate (Acute) Health: Y Fire: Y  
Delayed (Chronic) Health: Y Reactive: Y

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**15 REGULATORY INFORMATION**  
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**Sudden Release of Pressure: N**

The components of this product are all on the TSCA Inventory list.

**Ingredient Related Regulatory Information:**

SARA Reportable Quantities	CERCLA RQ	SARA TPQ
Hydrogen peroxide	NE	1000 LBS
Water	NE	

**SARA Title III, Section 302**

This product does contain chemical(s), as indicated below, currently on the Extremely Hazardous Substance List, Section 302, and SARA Title III. See Section 2 for further details regarding concentrations and registry numbers. Hydrogen peroxide

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**16 OTHER INFORMATION**  
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**Revision Information**

Revision Date: 9/ Jan./ 2006

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