

Miles Chemical Co., Inc. 12801 Rangoon St., Arleta, CA 91331

MATERIAL SAFETY DATA SHEET

N.F.P.A. Rating: Health (3), Flammability (0), Reactivity (1)

I. PRODUCT IDENTIFICATION

Trade name (as labeled): **HYDROGEN PEROXIDE 20%-50%**

Chemical names, common names: Hydrogen Peroxide, HP Solution

Manufacturer's name: MILES CHEMICAL CO., INC.

Address: 12801 RANGOON ST., ARLETA, CA 91331

Emergency phone: 1-800-424-9300

Name of preparer*: Technical Dept.

Business phone: 818/504-3355

Date prepared: July 29, 2004

II. HAZARDOUS INGREDIENTS

Chemical Names	CAS Numbers	Percent	Exposure Limits in Air	
			ACGIH(TLV)	OSHA(PEL)
Hydrogen Peroxide	7722-84-1	20-50%	1 ppm TWA 1.4 mg/m ³	1 ppm TWA 1.4 mg/m ³

III. PHYSICAL PROPERTIES

Specific Gravity

-35% Hydrogen Peroxide 1.13 @ 20°C (68°F)

-50% Hydrogen Peroxide 1.20 @ 20°C (68°F)

Boiling Point

-35% Hydrogen Peroxide 1008°C (226°F) @1013 bar

-50% Hydrogen Peroxide 114°C (237°F) @1013 bar

Freezing Point

-35% Hydrogen Peroxide -33°C (-27°F)

-50% Hydrogen Peroxide -52°C (-62°F)

Vapor Density(Air = 1)

1.0

Solubility in Water

Complete

Decomposition

= 60°C (140°F) self-accelerated decomposition temp

Temperature

(SADT)with oxygen release

Vapor Pressure

Total (H₂O₂ + H₂O)

-50% Hydrogen Peroxide 12 mbar (9.0 mmHg) @ 20°C

72 mbar (54 mmHg) @ 50°C

pH(1% solution)@25C

5.0-6.0

Appearance/Color

Colorless liquid

IV. FIRE AND EXPLOSION

Flash Point: Non-Flammable

Auto-ignition Temperature: N/A

Fire extinguishing materials: Large quantities of water, water spray.

Special fire fighting procedures: Evacuate all non-essential personnel. Intervention only by capable personnel who are trained and aware of hazards of the product. Wear self-contained breathing apparatus when in close proximity or in confined spaces. When intervention in close proximity, wear acid resistant over-suit. After intervention, proceed to clean the equipment. Take a shower, remove clothing carefully, clean and check. If safe to do so, remove the exposed containers, or cool with large quantities of water. Stay upwind. Keep at a safe distance in a protected area. Never approach containers which have been exposed to fire, without cooling them sufficiently.

Unusual fire and explosion hazards: Oxygen released on exothermic decomposition may support combustion in case of surrounding fire. Oxidizing agent, may cause spontaneous ignition with combustible materials. Contact with flammables may cause fire or explosions. Pressure burst may occur due to decomposition in confined spaces/containers.

V. HEALTH AND HAZARD INFORMATION

Inhalation: Nose and throat irritation. Cough. In case of repeated or prolonged exposure; risk of sore throat, nosebleeds, and chronic bronchitis.

Ingestion: Paleness and cyanosis of the face. Severe irritation, risk of burns and perforation of the gastrointestinal tract accompanied by shock. Excessive fluid in the mouth and nose, with risk of suffocation. Risk of throat edema and suffocation. Bloating of stomach, belching, nausea and vomiting (bloody). Cough. Risk of chemical pneumonitis from product inhalation.

Skin/Eye Contact: Skin; Irritation and temporary whitening of contact area. Risk of burns. Eyes; Severe eye irritation, watering, redness and swelling of the eyelids. Risk of serious of permanent eye lesions.

FIRST AID: EMERGENCY PROCEDURES

Inhalation: Remove the subject from contaminated area. Consult with a physician in case of respiratory symptoms.

Ingestion: Get IMMEDIATE medical attention. Rinse mouth and administer fresh water. Do NOT induce vomiting. Oxygen or pulmonary resuscitation if necessary. Keep warm (blanket). NEVER give anything by mouth to an unconscious person.

Skin/Eye: Skin: remove contaminated clothing, shoes and socks, under a shower if necessary; wash affected skin with running water. Keep warm (blanket) and provide clean clothing. Consult a physician in all cases. Eyes: Flush eyes as soon as possible with running water for 15 minutes, while keeping eyelids open. In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine). Consult a physician in all cases.

VI. REACTIVITY DATA

Stability: Stable under normal conditions of use with slow gas release.

Incompatibility (materials to avoid): Acids, bases, metals, salts of metals, reducing agents, organic materials, flammable substances.

Hazardous decomposition or byproducts: Oxygen

Hazardous Polymerization: Will not occur.

Condition to Avoid: Excessive heat/sources of heat. Contamination.

VII. HANDLING AND STORAGE

Handling: Operate in a well-ventilated area. Keep away from heat sources. Keep away from incompatible products. Prevent all contact with organics. Use equipment and containers which are compatible with the substance. Before all operations, passivate the piping, circuits and vessels. Never return unused product to storage container. Eye wash station and quick drench shower should be accessible to immediate work area. Containers and equipment used to handle hydrogen peroxide should be used exclusively for hydrogen peroxide.

Storage: Store in a cool, ventilated area away from incompatible materials. Store away from heat sources. Keep away from combustible substances. Keep in container fitted with safety valve or vent. Keep in original packaging, closed. Provide containment diking for storage of the packages and transfer installation. Regulatory check the condition and temperature of containers.

VIII. CONTROLS/PERSONAL PROTECTION MEASURES

Respiratory Protection: Wear a NIOSH/MSHA approved respirator following manufacturer's recommendation, for excessive concentrations.

Eye protection: Wear protective goggles for industrial operations. If a risk of splashing exists, wear goggles and face-shield.

Skin protection: Wear chemical resistant gloves such as rubber, neoprene or vinyl. Wear coveralls. If risk of splashing exists, wear chemical resistant slicker suit and boots of PVC or rubber.

Other clothing and equipment: Have a safety shower/eye-wash fountain readily available in the immediate work area. Educate and train employees in the safe use and handling of this product.

IX. SPILL AND LEAK PROCEDURES

If possible dike large quantities of liquid with sand or earth. Dilute with large quantities of water. Do not add chemical products. In order to avoid the risk of contamination, the recovered product must not be returned to the original tank/container.

Waste Disposal Method: The materials resulting from clean-up operations may be hazardous wastes and, therefore, subject to specific regulations. Package, store, transport, and dispose of all (clean-up) materials and any contaminated

equipment in accordance with existing federal, state and local environmental control regulations.

X. LABELING

Oxidizer, Corrosive

DOT: Oxidize, Corrosive, Hydrogen Peroxide, aqueous solution, 5.1, UN2014, PKGII

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MSDS\Hydrogen Peroxide20-50%