

MATERIAL SAFETY DATA SHEET

Product Name : 030

Date Issued : 1/17/12

SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION

Product Name: 030
Formula : Multi-component mixture

Chemical Synonym / C# : c030
Chemical Family: Oxidizer

Supplier : Specialty Chemicals Inc. 208 Widedon Landing Hilton, NY 14468

Information Telephone : (585)752-2320

Emergency Telephone : (607)529-3218

SECTION 2 : COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	CAS #	% (w/w)	ACGIH TLV (mg/m3)	
			TWA	STEL
Hydrogen Peroxide	7722-84-1	> 30.0	1.4	-

Unlisted components are considered non-hazardous as per 29CFR1910.1200g2C. See section 15 for specific state right-to-know information if applicable.

SECTION 3 : HAZARD IDENTIFICATION

Emergency Overview : HEALTH : Liquid is corrosive to the eye and direct contact may cause irreversible tissue damage to eyes, including blindness. Inhalation of mist or vapor will cause severe irritation of lungs, throat and nose that usually subsides after exposure ceases. PHYSICAL : Initiates combustion in other materials by causing fire through release of oxygen. Read the entire MSDS for a more thorough evaluation of the hazards.

POTENTIAL HEALTH EFFECTS:

Skin Contact: Skin contact with aqueous solutions of less than 50% hydrogen peroxide may cause irritation with discomfort or rash. Higher or prolonged exposure may result in skin burns or ulceration. Evidence suggests that skin permeation can occur in amounts capable of producing systemic toxicity.

Eye Contact: Effects of eye contact with aqueous solutions of less than 5% hydrogen peroxide may include eye irritation with discomfort, tearing, or blurring of vision. Higher or prolonged exposure may result in eye corrosion with corneal or conjunctival ulceration. Contact with aqueous concentrations of greater than 10% hydrogen peroxide may result in eye corrosion with corneal or conjunctival ulceration with possible irreversible eye damage, including blindness.

Inhalation: Overexposure by inhalation may cause irritation of the upper respiratory passages or nonspecific discomfort such as nausea, headache, or weakness. Higher inhalation exposures may lead to temporary lung irritation effects with cough, discomfort, difficulty breathing, or shortness of breath; or fatality from gross overexposure.

Ingestion: Ingestion may cause irritation of the gastrointestinal tract with upper abdominal pain, "heartburn", nausea, vomiting, and diarrhea. "coffee grounds" vomitus and black tarry stools may occur as a result of gastrointestinal tract bleeding. Additional effects from overexposure include red blood cell destruction, or gas embolism. When used as colonic lavage, hydrogen peroxide has caused gas embolism and gangrene of the intestine at concentrations down to 0.75% hydrogen peroxide. Gross overexposure by ingestion may be fatal.

Note to Physicians: Individuals with preexisting diseases of the skin, eyes, or lungs may have increased susceptibility to the toxicity of excessive exposures.

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SECTION 4 : FIRST AID MEASURES

General:

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, while keeping the eyelids open. In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine). Call a physician. Consult with an ophthalmologist in all cases.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash contaminated clothing and shoes promptly and thoroughly.

Inhalation: If inhaled, immediately remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion: If swallowed, do not induce vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. Call a physician.

Note to Physicians : If swallowed, large amounts of oxygen may be released quickly. The distention of the stomach or esophagus may be injurious. insertion of a gastric tube may be advisable.

SECTION 5 : FIRE FIGHTING MEASURES

Flash Point : N/A **Method Used:** N/A **Flammable Limits:** LEL = N/A UEL = N/A

Extinguishing Media: Flood with water. Cool tank or container with water spray.

Fire Fighting Procedures: Use caution when fighting any fire. Wear full protective clothing (rubber suit and boots) including chemical splash goggles or hood and self-contained breathing apparatus.

Flammable Properties : Hydrogen Peroxide will not burn, but decomposition, which may be caused by heat or contamination will release oxygen which will increase the explosive limit range and burning rate of flammable vapors.

Unusual Fire and Explosion Hazards: Strong oxidizer. Contact with clothing or combustibles may cause fire. Effect may be delayed. Contact with organic liquids or vapors may cause immediate fire or explosion, especially if heated. Under certain circumstances, detonation may be delayed. Oxygen release from hydrogen peroxide may force organic or hydrogen vapors into an explosive range. Follow appropriate National Fire Protection Association (NFPA) codes.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Steps to be taken in case material is released or spilled: Comply with Federal, State, and local regulations on reporting releases of wastes. Flood area with water and drain to an approved chemical sewer or wastewater treatment system, including municipal sewers if approved. May be destroyed with sodium metabisulfite or sodium sulfite (1.9 lbs. SO₂ equivalent per lb. of peroxide) after diluting to 5 - 10% peroxide.

The Extremely Hazardous Substance List Reportable Quantity for > 52% Hydrogen Peroxide is 1 lb.

If Hydrogen Peroxide (20 - 60%) is spilled and not recovered, or is recovered as a waste for treatment or disposal, the CERCLA Reportable Quantity is 100 lbs. (release of an unlisted Hazardous Waste characteristic of ignitibility).

SECTION 7 : HANDLING AND STORAGE

Handling: Use extreme care when attempting any reactions because of fire and explosion potential (immediate or delayed). Conduct all initial experiments on a small scale and protect personnel with adequate shielding as the reactions are unpredictable and may be delayed, and may be affected by impurities, contaminants, temperature, etc. Do not get in eyes. Do not taste or swallow. Avoid contact with skin and clothing. Wash thoroughly after handling. Avoid contact with flammable or combustible materials. Avoid contamination from any source including metals, dusts, and organic materials. Never use pressure to empty drums; container is not a pressure vessel. In the event of an accident where large volumes of hydrogen peroxide might come into contact with external fires or with incompatible chemicals, a one-half mile area from the incident should be evacuated.

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Storage Requirements: Store in a properly vented container or in approved bulk storage facilities. Do not block vent. Do not store on wooden pallets. Do not store where contact with incompatible materials could occur, even with a spill. (See Section 10). Have water source available for diluting. Do not add any other product to container. Never return used or unused peroxide to container, instead dilute with plenty of water and discard. Rinse empty containers thoroughly with clean water before discarding (See Section 13).

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection: Where there is potential for airborne exposure in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

Engineering Controls : Use sufficient ventilation to keep employee exposure below recommended exposure limits.

Skin Protection: Where there is potential for skin contact, have available and wear as appropriate : impervious gloves, apron, pants, jacket, hood, and boots; or totally encapsulating chemical suit with breathing air supply. Permeation data supplied by vendors indicate that impervious materials such as natural rubber, natural rubber plus neoprene, nitrile, or polyvinylchloride afford adequate protection. Do not wear leather gloves or leather shoes (uppers or soles) because they can ignite following contact with peroxide. Cotton clothing can also ignite. This effect may be within minutes, or delayed. Clothing fires and skin damage occur less quickly with 50% or lower hydrogen peroxide than with 70% material, but adequate personal protection is essential for all industrial concentrations. Protective skin creams offer no protection from hydrogen peroxide and should not be used.

Eye Protection: Wear coverall chemical splash goggles. In addition, where the possibility exists for eye or face contact due to splashing or spraying of material, wear chemical splash goggles/full-length face shield combination.

Exposure Guidelines: See section 2 for ACGIH recommendations for each hazardous ingredient.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Appearance / Odor: Clear liquid, odor nil.

Water Solubility: Complete

pH (1%): 5.0 - 6.0

Specific Gravity: 1.13

Boiling Point (°F): 212+

Evaporation Rate(water=1): N/A

% volatile: N/A

Vapor Density(air=1): N/A

Vapor Pressure(mmHg): N/A

SECTION 10 : STABILITY AND REACTIVITY

Chemical Stability: Unstable with heat or contamination; liberation of oxygen gas may result in dangerous pressures.

Decomposition: Contamination or heat may cause self-accelerating exothermic decomposition with oxygen gas and steam release that can cause dangerous pressures. May react dangerously with rust, dust, dirt, iron, copper, heavy metals or their salts (such as mercuric oxide or chloride), alkalies, and with organic materials (especially vinyl monomers).

Incompatibility with other Substances: Incompatible with most flammables/combustibles (See Section 5) as well as cyanides, nitric acid, potassium permanganate, and many other oxidizing and reducing agents.

Mixtures with both organics and some acids may be especially reactive.

Hazardous Polymerization: Will not occur.

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SECTION 11 : TOXICOLOGICAL INFORMATION

Toxicological Data (as Hydrogen Peroxide):

Inhalation : LC50 (8hour, rats) = > 2,000 ppm (90% H₂O₂)
Skin Absorption : LD50 (rabbits) = > 2,000 mg/kg (35% H₂O₂)
Oral : LD50 (rats) = 1232 mg/kg (35% H₂O₂)

At aqueous concentrations of less than 50% hydrogen peroxide skin irritation occurs, but at greater concentrations hydrogen peroxide is corrosive to the skin. Concentrations less than 5% in aqueous solutions are eye irritants; solutions between 5% and 10% range from severe eye irritants to being corrosive; concentrations greater than 10% are corrosive to the eye. The compound is not a skin sensitizer in animals. Repeated inhalation exposures produced nasal discharge, bleached hair, and respiratory tract congestion with some deaths occurring in rats and mice exposed to concentrations greater than 67 ppm. Dogs exposed by inhalation to 7 ppm for 6 months had lung and skin irritation.

The effects from single high oral doses include convulsions. Repeated administration of this compound in the diet of animals resulted in growth inhibition, reduced weight gain, abnormal liver function, ulcers, and discoloration of the stomach lining with swelling. Long-term administration to mice in the drinking water resulted in gastric erosion and duodenal hyperplasia.

Carcinogenicity: This product does not contain any materials considered to be carcinogenous according to OSHA, NTP, IARC, or ACGIH.

SECTION 12 : ECOLOGICAL INFORMATION

Exotoxicological Information (as Hydrogen Peroxide):

Aquatic toxicity : LC50 (96 hour, catfish) = 37.4 mg/l

SECTION 13 : DISPOSAL CONSIDERATIONS

Waste Disposal Method: Comply with Federal, State, and local regulations. If approved, may be diluted and drained to a municipal sewer or waste treatment plant. May be diluted and drained through a scrap metal pit (iron, copper, etc.) to reduce peroxide concentration. Hydrogen Peroxide may be an RCRA regulated hazardous waste upon disposal do to the oxidizing characteristic under the ignitibility category.

Is the unused product a RCRA hazardous waste (40CFR261.33) if discarded? Characteristic : ignitability, corrosivity

If yes, the RCRA ID number is : D001, D002

SECTION 14 : TRANSPORTATION INFORMATION

Transportation Emergency Telephone Number: 3E 24 hour number : (866)302-6855*

*Please refer to c# referenced in section 1 of this msds.

DOT Proper Shipping Name: Hydrogen Peroxide Solution (with 20-40% Hydrogen Peroxide)

DOT Hazard Class / Product Identification Number / Packing Group / DOT Label:

5.1 / UN2014 / PGII / Oxidizer, Corrosive

SECTION 15 : REGULATORY INFORMATION

US FEDERAL REGULATIONS :

TSCA (Toxic Substances Control Act) Status : TSCA (United States) The intentional ingredients of this product are listed.

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CERCLA RQ - 40 CFR 302.4(a) :

<u>Component</u>	<u>RQ (lbs)</u>
Hydrogen Peroxide	100

SARA 302 Components - 40 CFR 355 Appendix A

<u>Section 302 Component(s)</u>	<u>TPQ (lbs)</u>	<u>RQ (lbs)</u>
Hydrogen Peroxide	1000	1000

SARA 311/312 Classification - 40 CFR 370.2 :

(as Hydrogen Peroxide) : Immediate (acute) health hazard, fire hazard

Threshold Planning quantity : 10,000 pounds for < 52% Hydrogen Peroxide
500 pounds for > 52% Hydrogen Peroxide

SARA 313 Components - 40 CFR 372.65: None.

INTERNATIONAL REGULATIONS:

Inventory Status (as Hydrogen Peroxide):

Hydrogen Peroxide is on the following lists : Canadian Domestic Substance List (DSL) as Non-confidential #6754, Canadian WHMIS categories (Oxidizing material, Corrosive, Dangerously reactive material).

STATE AND LOCAL REGULATIONS:

California Safe Drinking Water Act (Prop. 65) Listing : None listed.

State Right-To-Know :

Hydrogen Peroxide is on the following lists : None known.

SECTION 16 : OTHER INFORMATION

NFPA Rating : HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 1
NFPA hazard degree designation 704: 4 = extreme, 3 = high, 2 = moderate, 1 = slight, 0 = none.

Information and data compiled to compose this MSDS is correct to the best of our knowledge as of the printed date, and is offered solely for your consideration, investigation, and verification.