

## MATERIAL SAFETY DATA SHEET

FOR CHEMICAL EMERGENCY Spill, Leak, Fire, Exposure or Accident CALL CHEMTREC DAY OR NIGHT 800-424-9300

### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	LIQUID FOCUS
	24-hr. Emergency #: (800) 424-9300
	US DOT Hazardous Materials Registration No.: 061307-004-024PR
CHEMICAL NAMES & SYNONYMS:	Commercial & Government Entity (CAGE) Code: 0YCK6
FORMULA:	Hydrogen peroxide
SUPPLIER'S NAME:	N/A
SUPPLIER'S ADDRESS:	Fabriclean Supply of Kansas, LC
SUPPLIER'S CITY, STATE, ZIP:	14400 W. 97th Terrace
SUPPLIER'S CITY, STATE, ZIP:	Lenexa, KS 66215
SUPPLIER'S TELEPHONE:	(800) 832-0096

### SECTION 2 - INGREDIENTS

INGREDIENTS	PERCENT	ADOPTED VALUES
Hydrogen Peroxide CAS # 7722-84-1	35 %	ACGIH TLVs: TWA 1 ppm / 1.4 mg/m <sup>3</sup> . OSHA PELs: TWA 1 ppm / 1.4 mg/m <sup>3</sup> . NIOSH RELs: TWA 11 ppm / 1.4mg/m <sup>3</sup>

**Note:** The exact composition of this product, with respect to the percentages of its' reported ingredients and the presence of its' non-regulated ingredients [not reported], is proprietary information and is being withheld. In the event of a medical emergency, total disclosure will be made to the proper authorities.

### SECTION 3 - HEALTH HAZARDS IDENTIFICATION

**Primary Routes of Entry:** Eye/skin contact. Inhalation. Ingestion.

**WARNING!:** Hydrogen peroxide may cause severe irritation or burns of the skin, eyes and mucous membranes. Splashes in the eye can cause severe eye damage with ulceration of the cornea, and may cause irreversible eye damage, including blindness. Skin exposure can result in bleaching of the skin and hair. Inhalation of concentrated vapors can cause irritation of the nose and throat with chest discomfort, cough, difficulty in breathing and shortness of breath. Ingestion can cause irritation of the upper gastrointestinal tract with pain and distention of the stomach and esophagus due to liberation of oxygen. Gross overexposure by ingestion may be fatal.

**HUMAN HEALTH EFFECTS:** Skin contact with aqueous solutions of less than 50% 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. Effect of eye contact with aqueous solutions of less than 5% 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% may result in eye corrosion with corneal or conjunctival ulceration with possible irreversible eye damage, including blindness.

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 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%. Gross overexposure by ingestion may be fatal. Individuals with preexisting diseases of the skin, eyes, or lungs may have increased susceptibility to the toxicity of excessive exposures.

**OSHA, IARC, OR NTP CARCINOGEN INFORMATION:** None of the components in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH.

### SECTION 4 - FIRST AID MEASURES

#### FIRST AID PROCEDURES:

**EYES:** Object is to flush material out of eyes immediately, then seek medical attention. Immediately flush with plenty of water for at least 15 minutes while holding eyelids open to ensure flushing of the entire eye surface. Get medical attention.

**SKIN:** Immediately wash contaminated areas with plenty of water for at least 15 minutes. Remove contaminated clothing and footwear and wash clothing before reuse. Discard footwear, which cannot be decontaminated. Seek medical attention if symptoms develop or persist.

**INHALATION:** Remove to fresh air; if breathing is difficult, have trained personnel administer oxygen. If respiration stops, give mouth-to-mouth resuscitation. Get immediate medical attention. (**Note:** Coughing, sneezing or other symptoms of upper respiratory irritation may serve as a warning of exposure to high airborne concentrations.)

**MSDS/LIQUID FOCUS, PAGE 2, SECTION 4 CONT.**

## MATERIAL SAFETY DATA SHEET

**INGESTION: DO NOT INDUCE VOMITING!** Rinse mouth with water; give large quantities of water or milk to drink. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Give more liquids. Do not give anything by mouth to an unconscious or drowsy person. Get immediate medical attention. (Because rapid absorption may occur through lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by a physician.)

**NOTES TO PHYSICIANS:** If swallowed, large amount 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 & EXPLOSION HAZARDS / FIRE FIGHTING MEASURES

---

**Flash Point:** Non-flammable. 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.

**Extinguishing Media:** Use only water.

**Special Fire Fighting Procedures:** Flood with water. Cool containers with water spray. Wear full protective clothing (rubber suit and boots) including chemical splash goggles or hood and self-contained breathing apparatus.

**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 if material is released or spilled:** Review Fire Fighting Measures and Handling sections before proceeding with clean-up. Use appropriate personal protective equipment during clean-up.

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. SO<sub>2</sub> equivalent per pound of peroxide) after diluting to 5 - 10% peroxide.

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 ignitability).

---

### SECTION 7 - HANDLING AND STORAGE

---

**Precautions to be taken in handling and storing:** (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. Avoid contact with skin and clothing. Wash thoroughly after handling. Avoid contact with flammable or combustible materials. Avoid contamination from any source including metals, dust, 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. 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 "Hazardous Reactivity.") 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 "Waste Disposal.")

---

### 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.

**Ventilation Required:** Use sufficient ventilation to keep employee exposure below recommended exposure limits.

**Protective Clothing: Eyes:** 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. **Skin:** 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.

**Additional Protective Measures:** Safety shower, eye bath and washing facilities should be available and easily accessible.

---

### SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

---

**MSDS/LIQUID FOCUS, PAGE 3, SECTION 9 CONT.**

## MATERIAL SAFETY DATA SHEET

<b>Appearance:</b>	Clear colorless liquid
<b>Boiling Point:</b>	108C/226F
<b>Melting Point:</b>	-33.0C/-27.4F
<b>Specific Gravity:</b>	1.13 @ 25C/77F
<b>Vapor Pressure-mmHg:</b>	17.4 @ 25C/77F

---

### SECTION 10 - STABILITY AND REACTIVITY

---

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

**Incompatibility:** Incompatible with most flammables/combustibles, 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 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), alkalis and with organic materials (especially vinyl monomers).

**Hazardous Polymerization:** Will not occur.

---

### SECTION 11 - TOXICOLOGICAL INFORMATION

---

**Toxicological Information:** (Animal Data) Inhalation 8-hour LC50: >2,000 ppm in rats (90% H2O2). Skin absorption LD50: >2,000 mg/kg in rabbits (35% H2O2). Oral LD50: 1232 mg/kg in rats (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 the 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.

One study by skin application suggested no carcinogenic activity. Results of an ingestion study with mice suggested that hydrogen peroxide might be carcinogenic. However, the FDA and other organizations have reviewed this study and concluded there is insufficient evidence that hydrogen peroxide is carcinogenic. An unpublished, long-term study with rats revealed no evidence of carcinogenicity. Female rats treated with 10% hydrogen peroxide produced offspring of lower body weight and some structural abnormalities, but these changes were attributed to maternal toxicity. Hydrogen peroxide produced genetic damage to bacterial and mammalian cells in culture, but one study in animals indicated it did not produce genetic damage. Limited tests in animals demonstrate no reproductive toxicity.

---

### SECTION 12 - ECOLOGICAL INFORMATION

---

Aquatic Toxicity: 96-hr LD50, catfish: 37.4 mg/L

---

### SECTION 13 - DISPOSAL CONSIDERATIONS

---

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 due to the oxidizing characteristic under the ignitability category. Appropriate disposal will depend on the nature of each waste material and should be performed by competent and properly permitted contractors. Ensure that all responsible Federal, State, and Local agencies received proper notification of spill and disposal of waste, if required.

---

### SECTION 14 - TRANSPORT INFORMATION

---

**Proper Shipping Name:** Hydrogen Peroxide Aqueous Solution 20 to 40%

**Hazard Class:** 5.1

**UN#:** UN2014

**Packing Group:** II

**Sticker Required:** Oxidizer, Corrosive

**Emergency Response Guidesheet:** #140

**MSDS/LIQUID FOCUS, PAGE 4.**

---

### SECTION 15 - REGULATORY INFORMATION

---

## MATERIAL SAFETY DATA SHEET

(Notice: The information herein is presented in good faith and believed to be accurate as of the effective date shown below. However, no warranty, expressed or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.)

(A simple explanation of each act [legislation] is included in this section. Ingredients listed in these sections means they are governed by that particular act.)

**NFPA - NATIONAL FIRE PROTECTION ASSOCIATION:** The National Fire Protection Association (NFPA) is a nonprofit, educational organization. The goal of NFPA is to promote the science of fire protection and prevention. With this aim, NFPA has developed information on the hazardous properties of many chemicals, which enables the user to come up with safe procedures during the chemicals' use, storage, and transportation. There are three categories of hazards: Health (H), flammability (F), and reactivity (R). Within each category, there are numerical ratings from 0 - 4, with 0 indicating no hazard, 4 indicating severe hazard.

Health 2 / Fire 0 / Reactivity 1

**HAZARD COMMUNICATION:** OSHA's Hazard Communication Standard initially went into effect November 1985/May 1986. It is OSHA's most comprehensive worker protection regulation. It provides for information and training for workers encountering chemical exposures in the workplace. The standard requires the use of labels and Material Safety Data Sheets for all regulated chemicals.

---

### SECTION 16 - OTHER INFORMATION

---

#### AS A GENERAL RULE, PREVENT AND PROTECT THIS PRODUCT FROM UNAUTHORIZED USE

FOR INDUSTRIAL USE ONLY !!!!!

END OF REPORT

NAME: Robert C Jaudon  
(636) 296-3131, 296-3888

DATE ISSUED: 5/20/02  
DATE REVISED: 7/01/07

< = LESS THAN  
> = MORE THAN  
UNK = UNKNOWN

N/A = NOT APPLICABLE  
N/D = NOT DETERMINED  
N/E = NOT ESTABLISHED

In accord with the philosophy established by the Occupational Safety and Health Administration's Hazard Communication Final Rule, 1985, this Material Safety Data Sheet has been designed to emphasize the hazardous portions (ingredient[s]) utilized in the total formulation. As a result, the information herein stresses the most hazardous component(s) only. By this approach, we feel better knowledge and awareness should substantially contribute to reduce exposure and injury to workers involved with the use of this product. The information supplied in this document is presented for exactly this purpose. As required by law, this data should be thoroughly read and made available to anyone who may be responsible for handling this material. All data provided relates to the concentrated product as shipped. Actual usage rates and further dilution will, in most cases, greatly reduce, if not eliminate, the potential for worker injury. Any and all chemical products should be handled with extreme care and only by authorized and informed personnel. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this MSDS should be provided to your employees or customers. It is your responsibility to use this information to develop appropriate work practice guidelines and employee instructional programs for your operation.

The information and recommendations provided in this Material Safety Data Sheet have been obtained from data we believe to be reliable. We provide no warranties, expressed or implied, or accept no responsibility for loss associated with the use or handling of this product. This information is offered for your review and consideration. Efforts should be extended to determine the applicability of this product for your specific intended use. We know of no medical condition, other than those noted in this Material Safety Data Sheet, which are generally recognized as being aggravated by exposure to this product.

REASON FOR REVISION: Section 1 - Haz. Mat. Reg. number