

\*\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*\*

Hydrogen Peroxide 30-50%  
 11189

\*\*\*\* SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION \*\*\*\*

MSDS Name: Hydrogen Peroxide 30-50%  
 Catalog Numbers:

H323-500, H323500, H325 100, H325 4, H325 500, H325-100, H325-4, H325-500,  
 H325100, H3254, H325500, H325500001, H327 500, H327-500, H327500, H341 500,  
 H341-500, H341500, S748761MF, WESH325500, ZZH3253015

Synonyms:

Carbamide peroxide, hydrogen dioxide, hydroperoxide, urea peroxide,  
 hydrogen peroxide 100 volumes.

Company Identification: Fisher Scientific

1 Reagent Lane  
 Fairlawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

\*\*\*\* SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS \*\*\*\*

CAS#	Chemical Name	%	EINECS#
7722-84-1	Hydrogen peroxide	12-50%	231-765-0
7732-18-5	Water	50-88 %	231-791-2

Hazard Symbols: O F C

\*\*\*\* SECTION 3 - HAZARDS IDENTIFICATION \*\*\*\*

EMERGENCY OVERVIEW

Appearance: clear,colorless.

Danger! Strong oxidizer. Contact with other material may cause a fire. Corrosive. May cause central nervous system effects. Causes eye and skin burns. Causes digestive and respiratory tract burns. Eye contact may result in permanent eye damage.

Target Organs: Central nervous system, respiratory system.

Potential Health Effects

Eye:

Contact with liquid is corrosive to the eyes and causes severe burns.

Skin:

Contact with liquid is corrosive and causes severe burns and ulceration.

Ingestion:

Causes gastrointestinal tract burns. May cause vascular collapse and damage.  
 May cause difficulty in swallowing, stomach distension, possible cerebral swelling and death.

Inhalation:

Causes chemical burns to the respiratory tract. May cause ulceration of nasal tissue, insomnia, nervous tremors with numb extremities, chemical pneumonia, unconsciousness, and death.

Chronic:

Prolonged or repeated skin contact may cause dermatitis.

\*\*\*\* SECTION 4 - FIRST AID MEASURES \*\*\*\*

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed.

Skin:

Get medical aid immediately. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately. Call a poison control center.

Inhalation:

Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Treat symptomatically and supportively.

Antidote:

No specific antidote exists.

\*\*\*\* SECTION 5 - FIRE FIGHTING MEASURES \*\*\*\*

General Information:

Strong oxidizer. Contact with combustible materials may cause a fire. Use water spray to keep fire-exposed containers cool. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. Substance is noncombustible.

Extinguishing Media:

Use water only! Do not use carbon dioxide. Do not use dry chemical.

Autoignition Temperature: Noncombustible

Flash Point: Noncombustible

NFPA Rating: Not published.

Explosion Limits, Lower: 40

Upper: 100

\*\*\*\* SECTION 6 - ACCIDENTAL RELEASE MEASURES \*\*\*\*

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Use water spray to disperse the gas/vapor. Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite.

\*\*\*\* SECTION 7 - HANDLING and STORAGE \*\*\*\*

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Do not get on skin or in eyes. Do not ingest or inhale. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage:

Keep away from heat and flame. Do not store in direct sunlight. Store in a cool, dry, well-ventilated area away from incompatible substances.

\*\*\*\* SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION \*\*\*\*

Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Exercise care in cleaning all equipment before use with substance to prevent contamination.

Chemical Name	Exposure Limits		
	ACGIH	NIOSH	OSHA - Final PELs
Hydrogen peroxide	1 ppm ; 1.4 mg/m3 mg/m3 TWA	1 ppm TWA; 1.4 mg/m3 TWA	1 ppm TWA; 1.4 mg/m3 TWA
Water	none listed	none listed	none listed

OSHA Vacated PELs:

Hydrogen peroxide:  
 1 ppm TWA; 1.4 mg/m3 TWA

Water:

No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29CFR 1910.134. Always use a NIOSH-approved respirator when necessary.

\*\*\*\* SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES \*\*\*\*

Physical State:	Liquid
Appearance:	clear,colorless
Odor:	None
pH:	2.5-3.5
Vapor Pressure:	23 mm Hg @30C
Vapor Density:	1.0
Evaporation Rate:	1.0 (Butyl acetate=1)

Viscosity: 1.25 cP  
Boiling Point: 225 deg F  
Freezing/Melting Point: -26 deg F  
Decomposition Temperature: Not available.  
Solubility: Miscible in water.  
Specific Gravity/Density: 1.1-1.2(30-50%)  
Molecular Formula: H2O2  
Molecular Weight: 34.0128

\*\*\*\* SECTION 10 - STABILITY AND REACTIVITY \*\*\*\*

Chemical Stability:

Decomposes slowly to release oxygen.

Conditions to Avoid:

Incompatible materials, light, metals, excess heat, reducing agents, alkaline materials, strong oxidants.

Incompatibilities with Other Materials:

Acetic acid, acetic anhydride, acetone, alcohols + sulfuric acid, ammonia and its carbonates, antimony trisulfide, arsenic trisulfide, brass, bronze, t-butyl alcohol, cellulose, charcoal, chlorine + potassium hydroxide, chlorosulfonic acid, chromium, copper, cupric sulfide, dimethyl- benzylcarbinol + sulfuric acid, ethyl alcohol, ferrous sulfide, formic acid + organic matter, gold, hydrazine, hydrogen selenide, iron, ketones + nitric acid, lead, lead dioxide, lead monoxide, lead sulfide, lime water, magnesium, manganese, manganese dioxide, mercuric oxide, mercurous oxide, molybdenum disulfide, nitric acid, organic matter, 1-phenyl-2-methylpropyl

Hazardous Decomposition Products:

Oxygen, hydrogen gas.

Hazardous Polymerization: Has not been reported.

\*\*\*\* SECTION 11 - TOXICOLOGICAL INFORMATION \*\*\*\*

RTECS#:

CAS# 7722-84-1: MX0899000 MX0900000

CAS# 7732-18-5: ZC0110000

LD50/LC50:

CAS# 7732-18-5: Oral, rat: LD50 = 90 mL/kg.

CAS# 7732-18-5: Oral, rat: LD50 = 90 mL/kg.

Carcinogenicity:

Hydrogen peroxide -

IARC: Group 3 carcinogen

Water -

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology:

No information available.

Teratogenicity:

No information available.

Reproductive Effects:

No information available.

Neurotoxicity:

No information available.

Mutagenicity:

No information available.

Other Studies:

None.

\*\*\*\* SECTION 12 - ECOLOGICAL INFORMATION \*\*\*\*

Ecotoxicity:

Fingerling trout, 40 ppm/48H is toxic. Fathead minnow LC50=22-35 gm/L/96H

Environmental Fate:

No information reported.

Physical/Chemical:

No information available.

Other:

None.

\*\*\*\* SECTION 13 - DISPOSAL CONSIDERATIONS \*\*\*\*

Dispose of in a manner consistent with federal, state, and local regulations.

RCRA D-Series Maximum Concentration of Contaminants: Not listed.

RCRA D-Series Chronic Toxicity Reference Levels: Not listed.

RCRA F-Series: Not listed.

RCRA P-Series: Not listed.

RCRA U-Series: Not listed.

Not listed as a material banned from land disposal according to RCRA.

\*\*\*\* SECTION 14 - TRANSPORT INFORMATION \*\*\*\*

US DOT

Shipping Name: HYDROGEN PEROXIDE, AQUEOUS SOLUTIONS 30%

Hazard Class: 5.1

UN Number: UN2014

Packing Group: II

IMO

No information available.

IATA

No information available.

RID/ADR

No information available.

Canadian TDG

Shipping Name: HYDROGEN PEROXIDE

Hazard Class: 5.1(8)

UN Number: UN2014

\*\*\*\* SECTION 15 - REGULATORY INFORMATION \*\*\*\*

FEDERAL

TSCA

CAS# 7722-84-1 is listed on the TSCA inventory.

CAS# 7732-18-5 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ)

None of the chemicals in this material have an RQ.

Section 302 (TPQ)

CAS# 7722-84-1: concentration 52%: TPQ = 1000 pounds

SARA Codes

CAS # 7722-84-1: acute, flammable.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous

Substances under the CWA.

None of the chemicals in this product are listed as Priority

Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants

under the CWA.

OSHA:

CAS# 7722-84-1 is considered highly hazardous by OSHA.

STATE

Hydrogen peroxide can be found on the following state right to know

lists: California, New Jersey, Florida, Pennsylvania, Minnesota,

Massachusetts.

Not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level:

None of the chemicals in this product are listed.

INTERNATIONAL

European Labeling in Accordance with EC Directives

Hazard Symbols: O F C

Risk Phrases:

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately

with plenty of water and seek medical advice.

S 28 After contact with skin, wash immediately with

plenty of ... (to be specified by the manufacturer).

S 3 Keep in a cool place.

S 36/39 Wear suitable protective clothing and

eye/face protection.

S 28A After contact with skin, wash immediately with

plenty of water.

Canada

CAS# 7722-84-1 is listed on Canada's DSL/NDSL List.

CAS# 7732-18-5 is listed on Canada's DSL/NDSL List.

CAS# 7722-84-1 is listed on Canada's Ingredient Disclosure List.

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits:

CAS# 7722-84-1: OEL-AUSTRALIA:TWA 1 ppm (1.5 mg/m3). OEL-BELGIUM:TWA 1 ppm (1.4 mg/m3). OEL-DENMARK:TWA 1 ppm (1.4 mg/m3). OEL-FINLAND:TWA 1 ppm (1.4 mg/m3).STEL 3 ppm (4.2 mg/m3). OEL-FRANCE:TWA 1 ppm (1.5 mg/m3). OEL-GERMANY:TWA 1 ppm (1.4 mg/m3). OEL-THE NETHERLANDS:TWA 1 ppm (1.4 mg/m3). OEL-THE PHILIPPINES:TWA 1 ppm (1.4 mg/m3). OEL-SWITZERL AND:TWA 1 ppm (1.4 mg/m3).STEL 2 ppm (2.8 mg/m3). OEL-TURKEY:TWA 1 ppm (1.4 mg/m3). OEL-UNITED KINGDOM:TWA 1 ppm (1.5 mg/m3).STEL 2 ppm (3 mg/m3)

\*\*\*\* SECTION 16 - ADDITIONAL INFORMATION \*\*\*\*

Additional Information:

No additional information available.

MSDS Creation Date: 1/12/1995 Revision #14 Date: 9/02/1997

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to

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