

Material Safety Data Sheet

Section 1: Chemical Product and Company Identification

Product Name: Hydrogen Peroxide, 30% w/w

CAS#: 7722-84-1

Synonym:

Chemical Formula: H₂O₂

Contact Information:

UFC Biotechnology, Inc.

435 Creekside Drive, Suite 5

Amherst, New York 14228

Office Number: 716-777-3776

INFOTRAC (24HR Emergency Telephone), call:

1-800-535-5053

International INFOTRAC, call: 1- 352-323-3500

For non-emergency assistance, call: 1-716-777-3776

Section 2: Hazards Identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Oxidizing liquids Category 1	H271	May cause fire or explosion; strong oxidizer
Acute toxicity (oral) Category 4	H302	Harmful if swallowed
Acute toxicity (inhalation) Category 4	H332	Harmful if inhaled
Skin corrosion/irritation Category 1A	H314	Causes severe skin burns and eye damage

Full text of H statements : see section 16

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H271 - May cause fire or explosion; strong oxidizer

H302+H332 - Harmful if swallowed or if inhaled

H314 - Causes severe skin burns and eye damage.

Precautionary statement(s)

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

P220 - Keep/Store away from clothing, combustible materials

P260 - Do not breathe mist, vapors, spray

P264 - Wash exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P271 - Use only outdoors or in a well-ventilated area

P280 - Wear protective gloves, protective clothing, eye protection, face protection

P283 - Wear fire/flame resistant/retardant clothing

P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P306+P360 - If on clothing: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes

P310 - Immediately call a poison center or doctor/physician

P363 - Wash contaminated clothing before reuse

P370+P378 - In case of fire: Use carbon dioxide (CO₂), powder, alcohol-resistant foam to extinguish

P371+P380+P375 - In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion

P405 - Store locked up

P501 - Dispose of contents/container to comply with local, state and federal regulations If inhaled: Remove person to fresh

air and keep comfortable for breathing

- 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS**
None under normal conditions.

Section 3: Composition, Information on Ingredients

- 3.1 Substances**
Substance type: Multi constituent
Synonyms: Hydrogen peroxide, 30% w/w

Name	CAS	Formula	% by Weight
Hydrogen peroxide	7722-84-1	H ₂ O ₂	25-35%
Water	7732-18-5	H ₂ O	65-75%

Section 4: First Aid Measures

- 4.1 Description of first-aid measures**
Call a POISON CENTER or physician if you feel unwell (P312).
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340).
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). Immediately call a POISON CENTER or physician (P310).
If on skin or hair: Immediately remove all contaminated clothing. Rinse skin with water (P303+P361+P353).
If swallowed: Rinse mouth. Immediately call a POISON CENTER or physician (P301+P310+P330).
- 4.2 Most important symptoms and effects, both acute and delayed**
None reasonably foreseeable. Causes eye burns.
- 4.3 Indication of any immediate medical attention and special treatment needed**
No data available

Section 5: Firefighting Measures

- 5.1 Extinguishing media**
Suitable extinguishing media Use water spray or fog; do not use straight streams.
Unsuitable extinguishing media No information available
- 5.2 Special hazards arising from the substance or mixture**
Corrosive material. Containers may explode when heated. Oxidizer: Contact with combustible/organic material may cause fire. In the event of fire and/or explosion do not breathe fumes. Thermal decomposition can lead to release of irritating gases and vapors. May ignite combustibles (wood paper, oil, clothing, etc.).
Hazardous Combustion Products Hydrogen, Oxygen.
- 5.3 Advice for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
- 5.4 Further information**
NFPA Health 3 Flammability 0 Instability 1 Physical Hazards OX

Section 6: Accidental Release Measures

- 6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation. Use personal protective equipment as required. Do not use steel or aluminum tools or equipment. For personal protection see section 8.
- 6.2 Environmental precautions**
Should not be released into the environment. See Section 12 for additional Ecological Information.
- 6.3 Methods and materials for containment and cleaning up**
Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.
- 6.4 Reference to other sections**
For disposal see section 13.

Section 7: Handling and Storage

- 7.1 Precautions for safe handling**
Advice on safe handling Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Ensure adequate ventilation.
- 7.2 Conditions for safe storage, including any incompatibilities**
Storage conditions Keep containers tightly closed in a dry, cool and well-ventilated place.
To maintain quality Keep refrigerated. Protect from direct sunlight. Do not store in metal containers. Containers should be vented periodically in order to overcome pressure buildup. Do not store near combustible materials. Incompatible Materials. Strong oxidizing agents. Metals. Reducing Agent. Alcohols. Ammonia. copper. Copper alloys. lead oxides. Cyanides. Sulfides. Lead. Acetone. Aluminum. . Strong reducing agents. Combustible material
- 7.3 Specific end use(s)**
 Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Section 8: Exposure Controls/Personal Protection

8.1 Control parameters

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Hydrogen peroxide	TWA: 1 ppm	(Vacated) TWA: 1 ppm (Vacated) TWA: 1.4 mg/m3 TWA: 1 ppm TWA: 1.4 mg/m3	IDLH: 75 ppm TWA: 1 ppm TWA: 1.4 mg/m3	TWA: 1 ppm

ACGIH - American Conference of Governmental Industrial Hygienists
 OSHA - Occupational Safety and Health Administration
 NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

8.2 Exposure controls

Appropriate engineering controls Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Personal protective equipment

Eye/face protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin protection & Body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

Section 9: Physical and Chemical Properties

Physical State	Liquid
Appearance	Colorless
Odor	Slight
Odor Threshold	No information available
pH	3.3
Melting Point/Range	-33 °C / -27.4 °F
Boiling Point/Range	108 °C / 226.4 °F
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid, gas)	No information available
Flammability or explosive limits	
Upper	100%
Lower	40%
Vapor Pressure	No information available
Vapor Density	1.10
Specific Gravity	1.110
Bulk Density	>400 g/l
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	> 125 °C
Viscosity	No information available

Section 10: Stability and Reactivity Data

Reactive Hazard	Yes
Stability	Sensitivity to light. Oxidizer: Contact with combustible/organic material may cause fire.
Conditions to Avoid	Incompatible products. Excess heat. Exposure to light. Combustible material.
Incompatible products.	Avoid dust formation. Exposure to moist air or water.
Incompatible Materials	Strong oxidizing agents, Metals, Reducing Agent, Alcohols, Ammonia, copper, Copper alloys, lead oxides, Cyanides, Sulfides, Lead, Acetone, Aluminium, , Strong reducing agents, Combustible material.
Hazardous Decomposition Products	Hydrogen, oxygen
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

Section 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity LD50 Oral - Rat - female - 977 mg/kg (OECD Test Guideline 401) Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract. Acute toxicity estimate Inhalation - 4 h - 1.51 mg/l - dust/mist

(Expert judgment) LD50 Dermal - Rabbit - > 2,000 mg/kg (OECD Test Guideline 404) No data available

Skin corrosion/irritation Skin - Rabbit Result: Irritations (OECD Test Guideline 404)

Serious eye damage/eye irritation Eyes - Rabbit Result: Irreversible effects on the eye (OECD Test Guideline 405)

Respiratory or skin sensitization Maximization Test Result: negative Remarks: (IUCLID)

Germ cell mutagenicity Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: Mutagenicity (mammal cell test): Test system: Mouse lymphoma test Method: OECD Test Guideline 476 Result: negative

Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity No data available

Specific target organ toxicity - single exposure No data available

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard No data available

11.2 Additional Information

RTECS: WT1050000 sneezing, The sodium salt of dodecyl sulfate has been reported to cause pulmonary sensitization resulting in hyperactive airway dysfunction and pulmonary allergy accompanied by fatigue, malaise, and aching. Significant symptoms of exposure can persist for more than two years and can be activated by a variety of nonspecific environmental stimuli such as automobile exhaust, perfumes, and passive smoking. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information

12.1 Toxicity

Contains a substance that is: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not empty into drains. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate the groundwater system.

Toxicity to freshwater algae EC50 – 2.5 mg/L - 72 h

Toxicity to freshwater fish (P. promelas) LC50 – 16.4 mg/L - 92 h

Toxicity to water flea EC50 – 7.7 mg/L – 24 h

12.2 Persistence and degradability

Persistence is unlikely based on the information available. Miscible with water.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

Likely to be mobile due to water miscibility. Log Pow -1.1



Section 13: Disposal Considerations

13.1 Waste treatment methods

Chemical waste generators must determine whether a discarded chemical is classified as hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Section 14: Transport Information

DOT (US)

UN number: 2014 Class: 5.1 (8) Packing group: II
Proper shipping name: Hydrogen peroxide, aqueous solution

IATA

UN number: 2014 Class: 5.1 (8) Packing group: II
Proper shipping name: Hydrogen peroxide, aqueous solution

IMDG/IMO

UN number: 2014 Class: 5.1 (8) Packing group: II
Proper shipping name: Hydrogen peroxide, aqueous solution

TDG

UN number: 2014 Class: 5.1 (8) Packing group: II
Proper shipping name: Hydrogen peroxide, aqueous solution

Section 15: Other Regulatory Information

SARA 302 Components Hydrogen peroxide CAS #: 7722-84-1 Revision date: 2014-05-05

SARA 313 Components This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Massachusetts Right To Know Components No components are subject to the Massachusetts Right to Know Act.

CANADA No additional information available

EU-Regulations No additional information is available

National regulations No additional information available

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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