

Section 1: Product & Company Information

Product Identifier: Hydrogen Peroxide 3-7%

Other Means of Identification

Product Number: No data available.

Recommended Use and Restrictions on Use

Recommended Use: Bleaching Agent
Restrictions on Use: No data Available

Manufacturer / Importer / Supplier / Distributor Information

Company Name: CORECHEM Inc.
Address: 4320 Greenway Drive
Knoxville, TN 37918
USA

Information Telephone Number: 1-865-524-4239
Fax Number: 1-865-524-3375
Website: www.corecheminc.com
Contact Person: Regulatory Manager
E-mail: regulatory@corecheminc.com

Emergency Phone Number: Chemtrec® 1-800-424-9300 / Outside USA 1-703-527-3887 (monitored 24 hours/day)

Section 2: Hazards Identification

GHS Hazard Classification(s)

In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

Physical Hazard(s)

Not classified.

Health Hazard(s)

(Corrosion)Damage/Irritation, Eye - 2A
Specific Target Organ Toxicity (STOT)-Respiratory Irritation, Single exposure - 3

Environmental Hazard(s)

Aquatic, Chronic - 3

Label Elements

Signal Word

WARNING

Hazard Symbol(s)



Hazard Statement(s)

H319: Causes serious eye Irritation.
H335: May cause respiratory Irritation.
H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements

General

Not applicable.

Prevention

P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P264: Wash face, hands, and any exposed skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

P304 + P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
 P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312: Call a POISON CENTER or doctor/physician if you feel unwell.
 P337 + P313: If eye irritation persists: Get medical advice/attention.

Storage

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
 P405: Store locked up.

Disposal

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC)

None known.

Section 3 : Composition/Information on Ingredients

Mixture

Chemical Identity ²	Common Name/Synonym(s)	CAS # ³	Weight %	Impurity or Stabilizing Additive
Hydrogen peroxide	(H2O2)	7722-84-1	3-7%	No

- Information regarding the composition and the percentage ranges of the mixtures ingredients are not presented as its Confidential Business Information (CBI). Where a medical emergency exists (as determined by medical professional), timely disclosure of CBI is assured. The information omitted pertains to only the names of the substances and the concentration in the mixture (product) and can only be requested by a doctor/physician or Local/State/Provincial or Federal Authority.
- Non-hazardous ingredients are not presented as to protect the proprietary formula of the product.
- “—” Indicates ingredient is a mixture and contains multiple ingredients or may have no identifying CAS number.

Section 4: First-Aid Measures

General Information

Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wash contaminated clothing before reuse.

Inhalation

If inhaled, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Skin Contact

In case of contact, immediately flush skin with plenty of water. Wash clothing before reuse. Remove contaminated clothing and shoes. Thoroughly clean shoes before reuse.

Eye Contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Ingestion

If swallowed, DO NOT induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed

Symptoms

Exposure to material may cause delayed lung injury resulting in pulmonary edema and pneumonitis. Exposed individuals should be monitored for 72 hours after exposure for the onset of delayed respiratory symptoms.

Indication of immediate medical attention and special treatment needed

Hazards

No data available.

Treatment

No data available.

Section 5: Fire-Fighting Measures

General Fire Hazards

No data available.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

water spray, water fog

Unsuitable Extinguishing Media

Avoid water in straight hose stream; will scatter and spread fire.

Specific Hazards Arising from the Chemical

Oxidizing material, decomposition will release oxygen, which will intensify a fire. Fight fire remotely due to the risk of explosion.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

In case of major fire and large quantities: Evacuate area. Cool closed containers exposed to fire with water spray. Closed containers of this material may explode when subjected to heat from surrounding fire. Do not allow run-off from firefighting to enter drains or water courses. Firefighting equipment should be thoroughly decontaminated after use.

Special Protective Equipment for Fire-Fighters

As in any fire, wear self-contained breathing apparatus pressure-demand (OSHA/NIOSH approved or equivalent) and full protective gear.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment. Keep unauthorized personnel away. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in the immediate area). Evacuate area.

Methods and Materials for Containment and Clean-Up

Prevent further leakage or spillage if you can do so without risk. Evacuate area of all unnecessary personnel. Ventilate the area. Eliminate all ignition sources. Avoid generation of vapors. Avoid contact with cellulose, paper, sawdust, or similar substances. Risk of self-ignition or promotion of fires. Combustible materials exposed to hydrogen peroxide should be rinsed immediately with large amounts of water to ensure that all the hydrogen peroxide is removed. Contain and collect spillage with non-combustible absorbent material such as clean sand, earth, diatomaceous earth or non-acidic clay and place into suitable properly labeled containers for prompt disposal.

Notification Procedures

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 7: Handling and Storage

Precautions for Safe Handling

General information on handling: Avoid breathing vapor or mist. Avoid contact with eyes. Keep from contact with clothing and other combustible materials. Keep away from heat, sparks, and flames. Use only with adequate ventilation. Wash thoroughly after handling. Wear fire/ flame resistant/retardant clothing. Prevent product contamination. Keep only in the original container. Store in tightly closed container. DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER. Emptied container retains vapor and product residue. Observe all labeled safeguards until the container is cleaned, reconditioned, or destroyed. Avoid contamination.

Conditions for Safe Storage, including any Incompatibilities

General information on storage conditions:

Store in tightly closed container. Store in cool, dry, well-ventilated area away from sources of ignition such as flame, sparks, and static electricity. Store out of direct sunlight in a cool well-ventilated place. Store in original container. Store away from combustibles and incompatible materials. Refer to National Fire Protection Association (NFPA) 430, Code for the Storage of Solid and Liquid Oxidizers.

Storage incompatibility - General:

Store separate from: acids, alkalis, reducing agents, and combustibles.

Store separate from: Organic materials. Metallic oxides.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Value	Source
Hydrogen Peroxide (CAS# 7722-84-1)	TLV	1 ppm	US. ACGIH Threshold Limit Values
Hydrogen Peroxide (CAS# 7722-84-1)	PEL	1 ppm (1.4 mg/m3)	US OSHA Table Z-1

Biological Limit Values

The product does not contain any relevant quantities of hazardous materials with assigned biological limit values.

Appropriate Engineering Controls

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust

ventilation at sources of air contamination such as open process equipment. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Individual protection measures, such as personal protective equipment (PPE)

General Information

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Eye/Face Protection

Wear safety glasses with side shields (or goggles) and a face shield.

Skin Protection

Hand Protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory Protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information

Hygiene Measures

When using, do not eat, drink, or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated footwear that cannot be cleaned. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Avoid contact with eyes, skin, and clothing.

Section 9: Physical and Chemical Properties

Appearance:

Physical State: Liquid
Color: Clear - colorless

Odor: Pungent

Odor Threshold: No data available.

pH: No data available.

Melting Point/Freezing Point: 1 - 21°F (-13 - -6°C)

Initial Boiling Point and Boiling Range: 212-217°F (100 - 103°C)

Flash Point: None.

Evaporation Rate (butyl acetate=1): No data available.

Flammability (solid, gas): No data available.

Upper/Lower Limit on Flammability or Explosive Limits

Flammability Limit – Upper: Not applicable.

Flammability Limit – Lower: Not applicable.

Explosive Limit – Upper: No data available.

Explosive Limit – Lower: No data available.

Vapor Pressure: 28.00 mmHg (86 °F (30 °C))

Vapor Density (air =1): 1

Relative Density (water=1): 1.0018 - 1.0266 g/cm³

Solubility(ies):

Solubility in water: Completely soluble.

Solubility (other): No data available.

Partition coefficient (n-octanol/water): No data available.

Auto-Ignition Temperature: Not applicable.

Decomposition Temperature: No data available.

Viscosity: No data available.

Other Information:

Molecular Weight: 34.01 g/mol

Formula: H₂O₂

Section 10: Stability and Reactivity

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical Stability

This material is chemically stable under normal and anticipated storage, handling, and processing conditions.

Possibility of Hazardous Reactions

No data available.

Conditions to Avoid

Material decomposes with the potential to produce a rupture of unvented closed containers.

Incompatible Materials

Metals, Organic materials, Reducing agents, Alkaline materials, Metallic oxides, Dusts, Combustible materials (e.9., wood, sawdust)

Hazardous Decomposition Products

This material decomposes if contaminated, causing fire and possible explosions. Oxygen can be liberated at temperatures above ambient.

Section 11: Toxicological Information

Information on routes of exposure

Ingestion: No data available.

Inhalation: No data available.

Skin Contact: Not irritating.

Eye Contact: Causes serious eye irritation.

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral

Hydrogen Peroxide (CAS# 7722-84-1) : Rat : LD0>5,000 mg/kg

Dermal

Hydrogen peroxide (CAS# 7722-84-1) : (rat and Rabbit) LD50 > 2,000 mg/kg

Inhalation

Hydrogen Peroxide (CAS# 7722-84-1) : (Rat) 4 h LD0 > 0.17 mg/l.

Repeated Dose Toxicity

Repeated drinking water administration to rat and mouse affected gastro-intestinal tract.

Skin Corrosion/Irritation

Not irritating.

Serious Eye Damage/Eye Irritation

Causes serious eye irritation.

Respiratory/Skin Sensitization

No data available.

Carcinogenicity

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Group 3, Not classifiable as to its carcinogenicity to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

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

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Germ Cell Mutagenicity

In Vitro

Genetic changes were observed in laboratory tests using bacteria, animal cells.

In Vivo

Genetic changes were observed in a laboratory test using mice, rats.

Reproductive Toxicity

None known.

Specific Target Organ Toxicity – Single Exposure

None known.

Specific Target Organ Toxicity – Repeated Exposure

None known.

Aspiration Hazard

Not classified.

Other Effects

None known.

Section 12: Ecological Information

Ecotoxicity

Acute Hazards to the Aquatic Environment

Fish

Harmful. Pimephales promelas (fathead minnow) 96 h LC50 = 16.4 mg/l

Aquatic Invertebrates

Toxic. Daphnia pules (water flea) 48 h EC50 = 2.4 mg/l

Toxicity to Aquatic Plants

Toxic. Skeletonema costatum 72 h ErC50 = 1.38 mg/l

Chronic Hazards to the Aquatic Environment

Fish

No data available.

Aquatic Invertebrates

Harmful Daphnia pules (water flea) 21 d NOEC (reproduction) = 0.63 mg/l

Toxicity to Aquatic Plants

No data available.

Persistence and Degradability

Biodegradation

Expected to be readily biodegradable.

BOD/COD Ratio

No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

No data available on bioaccumulation.

Partition Coefficient n-octanol / water (log Kow)

No data available.

Mobility in Soil

The product is water soluble and may spread in water systems.

Other Adverse Effects

No data available.

Section 13: Disposal Considerations

Disposal Instructions

Collect and reclaim or dispose of sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemicals or used containers. Dispose of contents/container in accordance with local/regional/national/international regulations.

Contaminated Packaging

Handle contaminated packages in the same way as the substance itself. Emptied containers may retain hazardous residue and explosive vapors. Keep away from heat, sparks, and flames. Do not cut, puncture, or weld on or near this container. Follow label warnings until container is thoroughly cleaned or destroyed.

Section 14: Transportation Information

US Department of Transportation (DOT)

This material is not regulated as a hazardous material for transport by the U.S. Department of Transportation in accordance with 49 CFR 172.101.

Section 15: Regulatory Information

US Federal Regulations

Toxic Substance Control Act (TSCA), Chemical Substance Inventory, Section 8(b)

This product or ingredient(s) are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance List (40 CFR 302.4)

No chemical(s) in this material are subject to the reporting requirements of CERCLA.

Clean Air Act (CAA), Section 112(r)

No chemical(s) in this material are subject to the reporting requirements of CAA.

Emergency Planning and Community Right-To-Know Act (EPCRA)

EPCRA 302 Extremely Hazardous Substance

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 302.

EPCRA 304 Emergency Response Notification

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 304.

EPCRA 311/312 Emergency and Hazardous Materials Reporting

Fire Hazard: Yes
Sudden Release of Pressure: No
Reactive: Yes
Acute (Immediate) Health Hazard: Yes
Chronic (Delayed) Health Hazard: No

EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

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

US State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Important Note: Due to the changing nature of regulatory requirements, the information in this document should NOT be considered all-inclusive or authoritative. Users should make their own investigations to determine the suitability of the information for their particular purposes. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

Section 16: Other Information

Hazardous Materials Identification System (HMIS®) Classification

Health Hazard: 1
Chronic Health Hazard: /
Flammability: 0
Physical Hazard: 1

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

National Fire Protection Association (NFPA 704) Rating

Health Hazard: 1
Fire Hazard: 0
Reactivity Hazard: 1

Special: N/A

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

Prepared By: Regulatory Manager

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Key to Abbreviations and Acronyms

ATE - Acute Toxicity Estimate
BCF - Bioconcentration Factor
EC50 - Effective concentration, 50%
IDHL - Immediately Dangerous to Life and Health
Kg - Kilogram
l - Liter
lb - Pound
LC50 - Lethal Concentration, 50%
LD50 - Lethal Dose, 50%
mg - milligram
ml - milliliter
N/A - Not Applicable
N/D - Not Determined
PEL - Permissible Exposure Limit
REL - Recommended Exposure Limit
STEL - Short-term Exposure Limit
TWA - Time weighted average

ACGIH - American Conference of Industrial Hygienists
AIHA - American Industrial Hygiene Association
BEI - Biological Exposure Indices
CAS - Chemical Abstracts Service
DOT - US Department of Transportation
EPA - US Environmental Protection Agency
GHS - Globally Harmonized System of Classification and Labeling of Chemicals
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IBC - Intermediate Bulk Container
IMDG - International Maritime Dangerous Goods
NIOSH - National Institute for Occupational Safety and Health
NTP - National Toxicology Program
OSHA - US Occupational Health and Safety Administration
SARA - US EPA Superfund Amendments and Reauthorization Act
TSCA - US EPA Toxic Substances Control Act
UN - United Nations

References

HSDB® - Hazardous Substances Data Bank

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