

Section 1: Product & Company Information

Product Identifier: Hydrogen Peroxide 20-29%

Other Means of Identification

Product Number: 145502

145507

205004

Recommended Use and Restrictions on Use

Recommended Use: Bleaching agent, Oxidizing agent, Cosmetics, Water treatment

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)

Oxidizing, Liquids - 3

Health Hazard(s)

Acute Toxicity, Oral - 4

(Corrosion)Damage/Irritation, Eye - 1

Specific Target Organ Toxicity (STOT)-Respiratory Irritation, Single exposure - 3

Environmental Hazard(s)

Aquatic, Chronic - 3

Label Elements

Signal Word

DANGER

Hazard Symbol(s)



Hazard Statement(s)

H272: May intensify fire; oxidizer.

H302: Harmful if swallowed.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements

General

Not applicable.

Prevention

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

P220: Keep/Store away from clothing/combustible materials.

P221: Take any precaution to avoid mixing with combustibles.

P261: Avoid breathing dust/fume/gas/mist/vapors/spray.

P264: Wash face, hands and any 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.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
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.
P310: Immediately call a POISON CENTER or doctor/physician.
P330: Rinse mouth.
P370 + P378: In case of fire: Use suitable extinguishing media for extinction.

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 (HNOG)

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	20 – 29%	No

- Information regarding the composition and the percentage ranges of the mixtures ingredients are not presented as it 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

Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

Eye Contact

Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital.

Ingestion

Clean mouth with water and drink afterwards plenty of water. Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

Most important symptoms/effects, acute and delayed

Symptoms

No data available.

Indication of immediate medical attention and special treatment needed

Hazards

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

Treatment

Treat symptomatically.

Section 5: Fire-Fighting Measures

General Fire Hazards

No data available.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

Alcohol-resistant foam, Carbon dioxide, dry chemical.

Unsuitable Extinguishing Media

High-volume water jet.

Specific Hazards Arising from the Chemical

Do not allow firefighting to enter drains or water courses. Hazardous Combustion Products: Acetic acid.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons, in case of fire, cans should be stored separately in closed containments.

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

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.

Methods and Materials for Containment and Clean-Up

Neutralize with chalk, alkali solution or ammonia. Contain spillage, and then collect with noncombustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/ national regulations.

Notification Procedures

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

Environmental Precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains, inform respective authorities.

Section 7: Handling and Storage

Precautions for Safe Handling

Do not taste or swallow. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or mist. 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.

Conditions for Safe Storage, including any Incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations/ working materials must comply with the technological safety standards.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Value	Source
Hydrogen Peroxide	TWA	1 ppm	US. ACGIH Threshold Limit Values
Hydrogen Peroxide	TWA	1 ppm (1.4 mg/m ³)	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.

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. Wear a full-face respirator, if needed. And have eye flushing equipment immediately available.

Skin Protection

Hand Protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory Protection

Avoid breathing vapor or mist. There airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces the need for face shield and/or chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply.

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 & PPE 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: Colorless

Odor:

Odorless

Odor Threshold:

No data available.

pH:

2 – 4 @20 °C (68 °F)

Melting Point/Freezing Point:

-17 °F (-27 °C)

Initial Boiling Point and Boiling

223 °F (106 °C)

Range:

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:

17.4 - 25 mmHg

Vapor Density (air =1):

Not determined

Relative Density (water=1):

1.12 @ 20 - 25 °C (68 - 77 °F)

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:

1.25 mPa.s

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

Stable under normal conditions.

Possibility of Hazardous Reactions

Product will not undergo hazardous polymerization. Stable under recommended storage conditions.

Conditions to Avoid

Metals.

Incompatible Materials

Reducing agents, bases, alcohols, flammable materials, organic solvent, metals.

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: Harmful if swallowed.

Inhalation: No deaths occurred.

Skin Contact: May be harmful in contact with skin

Eye Contact: Causes serious eye damage.

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral

Hydrogen Peroxide (CAS# 7722-84-11): (Rat) LD50 = 1,200 mg/kg

Dermal

Hydrogen Peroxide (CAS# 7722-84-11): (Rabbit) LD50 > 2,000 mg/kg.

Hydrogen Peroxide (CAS# 7722-84-11): (Rat) LD50 > 2,000 mg/kg.

Inhalation

Hydrogen Peroxide (CAS# 7722-84-11): (Rat) 4 h LCO > 0.17 mg/l.

Repeated Dose Toxicity

Repeated drinking water administration to rats and mice affected gastrointestinal tract. Repeated inhalation administration to Rat affected its nose.

Skin Corrosion/Irritation

Causes mild skin irritation.

Serious Eye Damage/Eye Irritation

Causes serious eye damage.

Respiratory/Skin Sensitization

May cause respiratory irritation.

Carcinogenicity

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

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

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 and animal cells

In Vivo

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

Reproductive Toxicity

None known.

Specific Target Organ Toxicity – Single Exposure

May cause respiratory irritation.

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

Hydrogen Peroxide (CAS# 7722-84-11): Pimephales promelas (fathead minnow) 96 h LC50 = 16.4 mg/l

Aquatic Invertebrates

Hydrogen Peroxide (CAS# 7722-84-11): Daphnia pulex (Water flea) EC50 = 2.4 mg/l - 48 h

Toxicity to Aquatic Plants

Hydrogen Peroxide (CAS# 7722-84-11): Skeletonema costatum ErC50 = 1.38 mg/l – 72h

Chronic Hazards to the Aquatic Environment

Fish

No data available.

Aquatic Invertebrates

NOEC: Daphnia magna (Water flea) 21d (reproduction) - 0.63 mg/l

Toxicity to Aquatic Plants

No data available.

Persistence and Degradability

Biodegradation

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)

Log Pow: -1.57

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

Section 13: Disposal Considerations

Disposal Instructions

Dilution with water is the preferred method of disposal. Dispose of it in accordance with federal, state and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and 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)

UN Number: 2014

UN Proper Shipping Name: Hydrogen peroxide, aqueous solutions

Technical Name:

Hazard Class: 5.1

Subsidiary Hazard Risk: 8

Packing Group: II

DOT Label/Placard Exemptions: Not determined

Special Provisions: A2, A3, B53, IB2, IP5, T7, TP2, TP6, TP24, TP37
Packaging Exceptions: 49CFR 173.152
Packaging Non-Bulk: 49CFR 173.202
Packaging Bulk: 49CFR 173.243
Reportable Quantity (RQ): 1,000lb (454kg)
Marine Pollutant: No
Poison Inhalation Hazard: No
Special precautions for user: Transport within the user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Emergency Response Guidebook (ERG) #: 140

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

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)

Hydrogen Peroxide: 1,000 lb RQ

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 data available.

EPCRA 304 Emergency Response Notification

Hydrogen Peroxide RQ: 1000 lb.

EPCRA 311/312 Emergency and Hazardous Materials Reporting

Fire Hazard: No

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: 3

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: 3

Fire Hazard: 0

Reactivity Hazard: 1

Special: OX

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

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Key to Abbreviations and Acronyms

ATE - Acute Toxicity Estimate	ACGIH - American Conference of Industrial Hygienists
BCF - Bioconcentration Factor	AIHA - American Industrial Hygiene Association
EC50 - Effective concentration, 50%	BEI - Biological Exposure Indices
IDHL - Immediately Dangerous to Life and Health	CAS - Chemical Abstracts Service
Kg - Kilogram	DOT - US Department of Transportation
l - Liter	EPA - US Environmental Protection Agency
lb - Pound	GHS - Globally Harmonized System of Classification and Labelling of Chemicals
LC50 - Lethal Concentration, 50%	IARC - International Agency for Research on Cancer
LD50 - Lethal Dose, 50%	IATA - International Air Transport Association
mg - milligram	IBC - Intermediate Bulk Container
ml - milliliter	IMDG - International Maritime Dangerous Goods
N/A - Not Applicable	NIOSH - National Institute for Occupational Safety and Health
N/D - Not Determined	NTP - National Toxicology Program
PEL - Permissible Exposure Limit	OSHA - US Occupational Health and Safety Administration
REL - Recommended Exposure Limit	SARA - US EPA Superfund Amendments and Reauthorization Act
STEL - Short-term Exposure Limit	TSCA - US EPA Toxic Substances Control Act
TWA - Time weighted average	UN - United Nations

References

HSDB® - Hazardous Substances Data Bank

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