OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) / GHS

SAFETY DATA SHEET

Blubonic Industries 35% Food Grade Hydrogen Peroxide—FCC H2O2, Pure Oxygen & Water (16 fl oz, 32 fl oz, 128 fl oz)

Revision Date: November 23, 2026 | **Manufacturer:** Blubonic Industries

SECTION 1: IDENTIFICATION

Field	Details
Product Identifier	Blubonic Industries 35% Food Grade Hydrogen Peroxide—FCC H2O2, Pure Oxygen & Water
Covered Container Sizes	16 fl oz, 32 fl oz, 128 fl oz
Other Means of Identification	Hydrogen Peroxide 35% Aqueous Solution; H_2O_2 35%
Recommended Use	Concentrated commercial / food-grade oxidizing, bleaching, and sanitizing agent (must be properly diluted prior to general use)
Restrictions on Use	Not for ingestion. Keep out of reach of children. Do not store in unvented containers. Keep strictly away from combustible materials, metals, alkalis, and organic contaminants.
Manufacturer	Blubonic Industries
Address	1112 Montana Avenue, Suite 370, Santa Monica, CA 90403
Emergency Telephone	310-857-2444
Product Verification	**Scan for product page and verification**

SECTION 2: HAZARD(S) IDENTIFICATION

GHS / OSHA Element	Classification & Information
OSHA / HCS Classification	Oxidizing Liquids — Category 2 Acute Toxicity (Oral) — Category 4 Skin Corrosion / Irritation — Category 2 Serious Eye Damage / Eye Irritation — Category 1 Specific Target Organ Toxicity (Single Exposure) — Category 3 (Respiratory tract irritation)
Signal Word	**DANGER**

GHS / OSHA Element	Classification & Information
Hazard Pictograms	Flame Over Circle (GHS03); Corrosion (GHS05); Exclamation Mark (GHS07)
Hazard Statements	**H272:** May intensify fire; oxidizer. **H302:** Harmful if swallowed. **H315:** Causes skin irritation. **H318:** Causes serious eye damage. **H335:** May cause respiratory irritation.
Precautionary Statements — Prevention	**P210:** Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. **P220:** Keep away from clothing and other combustible materials. **P261:** Avoid breathing mist, vapors, or spray. **P264:** Wash hands and 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, and eye/face protection.
Precautionary Statements — Response	**P301+P312+P330:** IF SWALLOWED: Call a POISON CENTER or doctor immediately. Rinse mouth. Do NOT induce vomiting. **P302+P352:** IF ON SKIN: Wash immediately with plenty of water. **P332+P313:** If skin irritation occurs: Get medical advice / attention. **P362+P364:** Take off contaminated clothing immediately and wash thoroughly with water before reuse. **P304+P340+P312:** IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. **P305+P351+P338+P310:** IF IN EYES: Rinse cautiously with water for at least 15–20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor. **P370+P378:** In case of fire: Use large quantities of water spray (fog) to extinguish.
Precautionary Statements — Storage & Disposal	**P403+P233:** Store in a well-ventilated place. Keep container upright and closed with vented cap. **P405:** Store locked up. **P501:** Dispose of contents / container in accordance with local, regional, national, and international regulations.
Hazards Not Otherwise Classified (HNOC)	Strong oxidizer; drying on combustible materials (cloth, paper, wood, leather) may cause spontaneous ignition.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture (stabilizer-free aqueous solution). Contains no chemical stabilizers or other hazardous ingredients.

Chemical Name	CAS Number	Concentration (% by weight)
Hydrogen Peroxide	7722-84-1	35.0%
Vapor Distilled Water	7732-18-5	65.0%

SECTION 4: FIRST-AID MEASURES

- **Eye Contact:** Small splashes can cause irreversible corneal damage and blindness. Immediately flush eyes with copious amounts of water for at least 15 to 20 minutes, holding eyelids open. Remove contact lenses if present and easy to do. Call a Poison Control Center or ophthalmologist immediately; continue rinsing during transport.
- **Skin Contact:** Immediately flush affected skin with large amounts of water for at least 15 minutes. Immediately remove contaminated clothing and drench it in water (dried peroxide on fabric poses a fire hazard). Seek medical attention if irritation, burns, or blistering occur.
- **Inhalation:** Move person immediately to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention immediately if coughing, shortness of breath, or throat irritation occurs; monitor for delayed pulmonary edema.
- **Ingestion:** Rinse mouth thoroughly with water. Do NOT induce vomiting. If conscious, give 1 to 2 glasses of water to dilute. Call a Poison Control Center or physician immediately; rapid oxygen evolution in the stomach can cause gastric distension and internal injury.
- **Most Important Symptoms / Effects:** Severe eye damage or blindness; skin irritation, chemical burns, stinging, blistering, and white skin blanching; respiratory tract irritation and potential pulmonary edema; severe gastrointestinal irritation, vomiting, and gastric distension if swallowed.
- **Indication of Immediate Medical Attention:** Immediate emergency medical care is required for eye contact, ingestion, or significant inhalation. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

- **Suitable Extinguishing Media:** Use copious amounts of water spray (fog) ONLY to extinguish surrounding fires, cool exposed containers, and dilute leaking solution.
- **Unsuitable Extinguishing Media:** Do NOT use dry chemical, carbon dioxide (CO_2), halon, or organic firefighting foams; these are ineffective against oxygen release and may react violently.
- **Specific Hazards Arising from the Chemical:** Strong oxidizer (Class 5.1, Subsidiary Class 8). Non-flammable itself, but decomposition releases oxygen gas and heat that vigorously intensify fires and can ignite combustible materials (wood, paper, textiles, oil). Confined or unvented containers may build extreme pressure and rupture violently if heated or contaminated.
- **Protective Equipment for Firefighters:** Wear full chemical-resistant firefighting gear and self-contained breathing apparatus (SCBA). Fight major fires from a safe, protected distance.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- **Personal Precautions:** Evacuate non-essential personnel and stay upwind. Ventilate area and eliminate all ignition sources. Remove all combustible materials (wood, cardboard, paper, rags) from the spill zone. Wear chemical splash goggles, face shield, impervious chemical-resistant gloves, apron, and boots.
- **Environmental Precautions:** Prevent concentrated product from entering storm drains, sewers, or natural waterways. Notify local authorities if large quantities contaminate waterways.
- **Methods for Containment and Clean-Up:** Flood and dilute spills thoroughly with copious amounts of water. If containment is required, dike with inert, non-combustible mineral materials (vermiculite, clean sand, or earth). NEVER use sawdust, paper towels, rags, or organic absorbents (fire hazard). Never return spilled material to the original container.

SECTION 7: HANDLING AND STORAGE

- **Precautions for Safe Handling:** Handle only in well-ventilated areas using chemical splash goggles, face shield, and compatible chemical-resistant gloves and apron. Avoid breathing mist or vapor. Use only passivated stainless steel, glass, or compatible HDPE equipment. When diluting, always add hydrogen peroxide slowly to water (never add water to concentrated peroxide). Never return unused product to the original container.
- **Conditions for Safe Storage:** Store upright exclusively in original closed, vented HDPE containers in a cool, dry, well-ventilated, non-combustible storage area away from direct sunlight, heat, and ignition sources. Keep strictly segregated from combustible materials, organic compounds, strong bases, reducing agents, metals, and rust. Store locked up.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits

Component	CAS Number	OSHA PEL	ACGIH TLV	NIOSH REL
Hydrogen Peroxide	7722-84-1	1 ppm (1.4 mg/m^3) 8-hr TWA	1 ppm 8-hr TWA	1 ppm (1.4 mg/m^3) TWA

- **Engineering Controls:** Provide adequate local exhaust or mechanical ventilation to keep vapor and mist levels below occupational exposure limits. Emergency eyewash stations and safety showers must be immediately accessible in handling areas.
- **Eye / Face Protection:** Chemical splash goggles (ANSI Z87.1) combined with a full-length face shield required during pouring, dilution, or transfer.
- **Skin / Hand Protection:** Chemical-resistant gloves (nitrile, neoprene, butyl rubber, or PVC), chemical-resistant apron, and rubber boots. NEVER wear cotton, wool, or leather gloves/clothing, which can ignite if saturated and allowed to dry.
- **Respiratory Protection:** Use a NIOSH-approved respirator appropriate for hydrogen peroxide vapors/mists whenever ventilation is insufficient or aerosol/mist generation is possible.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Value / Description
Appearance	Clear, colorless liquid
Odor	Faintly sharp / pungent
Odor Threshold	Not determined
pH	2.0 – 3.7 (≤ 3.7)
Melting / Freezing Point	≈ −33 °C (−27 °F)
Initial Boiling Point / Boiling Range	≈ 108 °C (226 °F)
Flash Point	Not applicable (non-flammable aqueous solution; strong oxidizer)
Evaporation Rate	Similar to water
Flammability (solid, gas)	Not applicable (non-flammable liquid; strong oxidizer)
Upper / Lower Flammability or Explosive Limits	Not applicable
Vapor Pressure	≈ 18 – 23 mmHg at 20 – 30 °C
Vapor Density	Not determined
Relative Density (Specific Gravity)	≈ 1.13 (Water = 1) at 20 °C
Solubility in Water	100% (Complete)
Partition Coefficient (n-octanol/water)	Not applicable (inorganic)
Auto-Ignition Temperature	Not applicable
Decomposition Temperature	Decomposes exothermically into water and oxygen; decomposition accelerates rapidly above 60 °C or upon contamination
Viscosity	≈ 1.1 cP at 20 °C
Oxidizing Properties	Oxidizing Liquid, Category 2 (strong oxidizer; aqueous hydrogen peroxide 20% to 60% is regulated as Class 5.1 with Subsidiary Class 8 Corrosive)

SECTION 10: STABILITY AND REACTIVITY

- **Reactivity:** Strong oxidizer; reacts vigorously with combustible materials, reducing agents, heavy metals, and alkalis.
- **Chemical Stability:** Chemically stable under recommended storage conditions in vented HDPE containers; decomposes slowly into water and oxygen over time.
- **Possibility of Hazardous Reactions:** Contamination with metals, rust, alkalis, or organic matter causes rapid, violent exothermic decomposition, releasing oxygen gas, steam, and heat that can rupture unvented containers or ignite combustible materials.
- **Conditions to Avoid:** Excessive heat, direct sunlight / UV light, ignition sources, confinement in unvented containers, contamination, and contact with combustibles.
- **Incompatible Materials:** Combustible/organic materials (wood, paper, oil, textiles, leather), strong bases/alkalis, strong reducing agents, heavy metals (iron, copper, manganese, brass, chromium), rust, permanganates, and cyanides.
- **Hazardous Decomposition Products:** Water (H_2O) and Oxygen (O_2) gas (exothermic).

SECTION 11: TOXICOLOGICAL INFORMATION

- **Likely Routes of Exposure:** Eye contact, skin contact, ingestion, inhalation of mist or vapor.
- **Acute Toxicity:** Classified as Acute Toxicity (Oral) Category 4 (H302: Harmful if swallowed). Published rat oral LD_{50} for 35% aqueous hydrogen peroxide ≈ 1,193 – 1,270 mg/kg; rabbit dermal LD_{50} > 2,000 mg/kg. Ingestion causes severe mucosal irritation, vomiting, and rapid oxygen evolution leading to gastric distension and internal injury.
- **Skin Corrosion / Irritation:** Classified as Skin Irritation Category 2 (H315: Causes skin irritation). Direct or prolonged contact with 35% solution can cause severe stinging, blistering, chemical burns, and white skin blanching.
- **Serious Eye Damage / Irritation:** Classified as Serious Eye Damage Category 1 (H318: Causes serious eye damage). Contact can cause irreversible corneal damage and blindness.
- **Respiratory or Skin Sensitization:** Not classified as a sensitizer.
- **Germ Cell Mutagenicity:** Not classified.
- **Carcinogenicity:** Not classified as a carcinogen by IARC (Group 3 — not classifiable), NTP, or OSHA.
- **Reproductive Toxicity:** Not classified.
- **STOT — Single Exposure:** Classified as STOT SE Category 3 (H335: May cause respiratory irritation). Inhalation of mist or vapor may cause coughing, throat irritation, and delayed pulmonary edema.
- **STOT — Repeated Exposure:** Not classified.
- **Aspiration Hazard:** Not classified.

SECTION 12: ECOLOGICAL INFORMATION

- **Ecotoxicity:** Concentrated spills are harmful to aquatic organisms prior to dilution and decomposition.
- **Persistence and Degradability:** Readily and rapidly decomposes into water and oxygen in the environment.
- **Bioaccumulative Potential:** Does not bioaccumulate.
- **Mobility in Soil:** Completely miscible in water; decomposes rapidly upon contact with soil and organic matter.
- **Other Adverse Effects:** None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal Methods: Dispose of contents and container in accordance with all applicable federal, state, and local hazardous waste regulations. Undiluted waste solution may be regulated as an EPA Ignitable / Oxidizer Hazardous Waste (D001) under RCRA (40 CFR 261.21). Do not discharge concentrated 35% solution into storm drains, waterways, or septic systems. Triple-rinse empty containers thoroughly with water prior to approved recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

Regulatory Mode	UN Number	Proper Shipping Name	Hazard Class	Packing Group
US DOT (49 CFR)	UN 2014	Hydrogen peroxide, aqueous solutions with not less than 20 percent but not more than 40 percent hydrogen peroxide (stabilized as necessary)	5.1 (Oxidizer); Sub. 8 (Corrosive)	II
IMDG (Sea)	UN 2014	HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 20% but not more than 40% hydrogen peroxide (stabilized as necessary)	5.1 (Oxidizer); Sub. 8 (Corrosive)	II
IATA / ICAO (Air)	UN 2014	Hydrogen peroxide, aqueous solution with ≥ 20% but ≤ 40% hydrogen peroxide	5.1 (Oxidizer); Sub. 8 (Corrosive)	II

Transport & Container Size Note: Regulated as Dangerous Goods / Hazardous Material — **UN 2014, Class 5.1 (Oxidizer), Subsidiary Class 8 (Corrosive), Packing Group II** under US DOT (49 CFR 172.101), IMDG (EmS: F-H, S-Q), and IATA DGR (Passenger Aircraft: Forbidden). Under US DOT Limited Quantity rules (49 CFR 173.152), inner containers of **16 fl oz** (473 mL) and **32 fl oz** (946 mL) fall below the 1 L limit (subject to venting, packaging, and carrier approval), whereas **128 fl oz** (3.785 L) exceeds the 1 L limit and requires full regulated Hazmat UN-specification packaging, labels, and shipping papers.

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

- **OSHA Hazard Communication Status:** Classified as a hazardous chemical under 29 CFR 1910.1200.
- **TSCA Inventory:** All components are listed on the US TSCA Chemical Substance Inventory.
- **SARA 302 (Extremely Hazardous Substances):** Not applicable at 35% concentration (threshold applies to concentrations > 52%).
- **SARA 311/312 Hazard Categories:** Oxidizer (Liquid); Acute Toxicity (Oral); Skin Corrosion or Irritation; Serious Eye Damage or Eye Irritation; Specific Target Organ Toxicity (Single Exposure).
- **SARA 313 (TRI):** Not listed.
- **CERCLA Hazardous Substance:** Not listed.
- **DHS Chemical of Interest (CFATS):** Aqueous hydrogen peroxide at concentrations ≥ 35% is listed on DHS Appendix A (bulk storage screening thresholds apply).

US State Regulations

- **California Proposition 65:** This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

SECTION 16: OTHER INFORMATION

- **Revision Date:** November 23, 2026
- **Prepared By:** Blubonic Industries
- **Abbreviations:** ACGIH = American Conference of Governmental Industrial Hygienists; ANSI = American National Standards Institute; CAS = Chemical Abstracts Service; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; CFATS = Chemical Facility Anti-Terrorism Standards; DHS = Department of Homeland Security; DOT = Department of Transportation; EmS = Emergency Schedule; EPA = Environmental Protection Agency; GHS = Globally Harmonized System; HDPE = High-Density Polyethylene; IATA = International Air Transport Association; ICAO = International Civil Aviation Organization; IMDG = International Maritime Dangerous Goods; LD_{50} = Median Lethal Dose; NIOSH = National Institute for Occupational Safety and Health; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit; RCRA = Resource Conservation and Recovery Act; REL = Recommended Exposure Limit; SARA = Superfund Amendments and Reauthorization Act; STOT SE = Specific Target Organ Toxicity — Single Exposure; TLV = Threshold Limit Value; TSCA = Toxic Substances Control Act; TWA = Time-Weighted Average.

Disclaimer: The information provided in this Safety Data Sheet is accurate to the best of our knowledge at the date of publication and is intended only as a guide for safe handling, use, storage, transportation, and disposal. It is not to be considered a warranty or quality specification.