1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Oxygen Bleach

OTHER MEANS OF IDENTIFICATION: Not applicable.

GENERAL USE: For professional wet cleaning & laundry use only.

PRODUCT DESCRIPTION: Oxygen Bleach

MANUFACTURER
Adco Professional Products LLC
1706 Ledo Rd.
Albany, GA 31707

Product Information: 800-821-7556 (USA & Canada only)

24 HR. EMERGENCY TELEPHONE NUMBERS

Medical Emergency: 866-303-6947 (USA & Canada only) or 651-632-9272

Transportation Emergency: 800-424-9300 (USA & Canada only) or 703-527-3887

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Oxidizing Liquids: Category 1
Acute Toxicity – Oral: Category 4
Skin Corrosion/Irritation: Category 1A
Eye Damage/Irritation: Category 1
Acute Toxicity – Inhalation: Category 4

GHS LABEL ELEMENTS

Symbol(s):

Signal Word: Danger

Hazard Statements:
H271 – May cause fire or explosion; strong oxidizer.
H302 – Harmful if swallowed.
H314 – Causes severe skin burns and eye damage.
H332 – Harmful if inhaled.

Precautionary Statements:
P210 – Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P220 – Keep/Store away from clothing/combustible materials.
P264 – Wash 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+P312+P330+P331 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do not induce vomiting.
P303+P361+P353+P363 – IF ON SKIN (or hair): Take of immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
P304+P340+P310 – IF INHALED: Remove affected person to fresh air and keep in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338+P310 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
P306+P360 – IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P321 – Specific treatment First Aid section of Safety Data Sheet.
P370+P378 – In case of fire: Use dry sand, dry chemical or 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.
P420 – Store separately.
P501 – Dispose of contents/container in accordance with local/ regional/ national/ international regulations.

Other Hazards: Not available.
Unknown Acute Toxicity: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Wt.%</th>
<th>CAS#</th>
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<tbody>
<tr>
<td>Hydrogen peroxide</td>
<td>28 - 32</td>
<td>7722-84-1</td>
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</table>

COMMENTS: None.

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention. Continue rinsing eyes during transport to hospital.

SKIN: Remove contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

INGESTION: Rinse mouth. Do not induce vomiting unless instructed to do so by poison center or physician. Consult a physician.

INHALATION: Remove affected person to fresh air. If not breathing, give artificial respiration. Get medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Irritation, redness, tearing, swelling.

SKIN: Irritation, drying.

SKIN ABSORPTION: No data available.

INGESTION: Nausea, vomiting, bloating of stomach.

INHALATION: Throat pain, cough, nose bleeding.

ADDITIONAL INFORMATION: After emergency actions, call the emergency medical information number on page 1 or a physician immediately. Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
5. FIRE FIGHTING MEASURES

**FLAMMABLE CLASS:** Oxidizer.

**EXTINGUISHING MEDIA:** Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**HAZARDOUS COMBUSTION PRODUCTS:** Nature of decomposition products not known.

**OTHER CONSIDERATIONS:** Oxygen released in thermal decomposition may support combustion. Contact with combustible materials may cause fire. Contact with flammables may cause fire or explosions. Risk of explosion if heated under confinement.

**FIRE FIGHTING EQUIPMENT:** As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear. Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Use personal protective equipment. For personal protection see section 8. Avoid breathing vapours, mist or gas. Isolate the area. Keep away from incompatible materials. In case of contact with combustible material, keep material wet with plenty of water. Ensure adequate ventilation. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

**LARGE SPILL:** Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Prevent further leakage or spillage if safe to do so. Keep unnecessary personnel away. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Do not add chemical products. Never return to original container. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Do not flush to sewer. Do not let product enter drains, water courses or onto the ground. Discharge into the environment must be avoided.

7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Keep away from heat and incompatible products. Keep away from sources of ignition - No smoking. Keep away from organic materials. Before all operations, passivate the piping circuits and vessels according to the procedure recommended by the producer. Never return unused material to storage receptacle. Use only in area with adequate water supply. Regularly check the condition and temperature of the containers.

**HANDLING:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use only in well-ventilated areas. For precautions see section 2.

**STORAGE:** Keep container tightly closed in a dry and well-ventilated place. Store in a diked area. Only store in original container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Recommended storage temperature 2 - 8°C (35 - 46°F). Storage class (TRGS 510): Oxidizing hazardous materials.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:
OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>EXPOSURE LIMITS</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Supplier OEL</th>
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<td>STEL</td>
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</tbody>
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TABLE FOOTNOTES:
1. A3: Confirmed animal carcinogen with unknown relevance to humans.
2. NE=Not established.

ENGINEERING CONTROLS: Good general ventilation should be sufficient to control airborne levels.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

SKIN: Handle with Nitrile gloves (≥ 11 mm thickness). Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands

RESPIRATORY: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)

PROTECTIVE CLOTHING: Where contact is likely, wear the appropriate chemical resistant equipment, which depending on circumstances may include gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

WORK HYGIENIC PRACTICES: Wash thoroughly after handling. Do not smoke, eat or drink in work area. Routinely wash work clothing and protective equipment to remove contaminants.

OTHER USE PRECAUTIONS: Have eye wash station available. Do not wear contact lenses without eye protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear.

PHYSICAL STATE: Liquid.

COLOR: Colorless.

ODOR: Pungent.
**ODOR THRESHOLD:** No data available.

**pH:** 1.0-4.0 (apparent pH)

**FREEZING POINT:** No data available.

**INITIAL BOILING POINT:** 108 °C (226°F)

**FLASHPOINT:** No data available.

**EVAPORATION RATE:** No data available.

**FLAMMABILITY (Solid, Gas):** No data available.

**FLAMMABLE LIMITS:** No data available.

**VAPOR PRESSURE:** 23 mm Hg at 20°C

**VAPOR DENSITY:** 1.1

**RELATIVE DENSITY:** 1.11

**SOLUBILITY IN WATER:** Complete.

**PARTITION COEFFICIENT (Log K_{ow}):** No data available.

**AUTOIGNITION TEMPERATURE:** Not available.

**DECOMPOSITION TEMPERATURE:** No data available.

**VISCOSITY:** 1.25 cP

**PERCENT VOLATILE:** No data available.

10. STABILITY AND REACTIVITY

**REACTIVITY:** Strongly oxidizing.

**CHEMICAL STABILITY:** Decomposes slowly to release oxygen.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Polymerization will not occur.

**CONDITIONS TO AVOID:** Mechanical shock, light, ignition sources, temperatures exceeding 60°F (140°F).

**INCOMPATIBLE MATERIALS:** Zinc, powdered metals, iron and iron salts, copper, nickel, brass. Acids, bases, salts of other metals, reducing agents, organic materials, flammable and combustible materials.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Oxygen. The release of other hazardous decomposition products is possible.

11. TOXICOLOGICAL INFORMATION

**ROUTES OF ENTRY:** Inhalation and skin.

**ACUTE TOXICITY (ATE)**

- **DERMAL LD_{50}:** Not available
- **ORAL LD_{50}:** 500 mg/kg (rat)
- **INHALATION LC_{50}:** 4,500 ppm (rat)

**CHRONIC TOXICITY**

**TARGET ORGANS:** Not classified.

**SENSITIZATION:** Not available.

**CARCINOGENICITY**

- **IARC:** Hydrogen peroxide is classified as Group 3 (Not classifiable as to its carcinogenicity to humans).
- **NTP:** Not listed as a carcinogen.
- **OSHA:** Not listed as a carcinogen.
- **OTHER:** No data available.
Oxygen Bleach

OTHER: No data available.

REPRODUCTIVE EFFECTS: Insufficient data available.

MUTAGENICITY: In vitro tests have shown mutagenic effects.

SYNERGISTIC MATERIALS: No data available

POTENTIAL HEALTH EFFECTS

EYES: Prolonged exposure risk of serious damage to eyes.

SKIN: Insufficient data available.

SKIN ABSORPTION: Insufficient data available.

INGESTION: May cause burns of the upper digestive and respiratory tracts.

ASPIRATION HAZARD: Insufficient data available.

INHALATION: May cause chronic bronchitis and chemical pneumonitis.

MEDICAL CONDITIONS AGGRAVATED: No data available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: Hydrogen peroxide has low aquatic toxicity.

PERSISTENCE AND DEGRADABILITY: Insufficient data available.

BIOACCUMULATIVE POTENTIAL: Insufficient data available.

MOBILITY IN SOIL: Insufficient data available.

OTHER ADVERSE EFFECTS: No data available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of in accordance with federal, state and local regulations.

EMPTY CONTAINER: Dispose of in accordance with local regulations. If partly filled: Call your local solid waste agency for disposal instructions. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

RCRA/EPA WASTE INFORMATION: Contains no material listed by RCRA as hazardous waste.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Hydrogen Peroxide, Aqueous Solutions.

TECHNICAL NAME(S): Not applicable.

PRIMARY HAZARD CLASS/DIVISION: 5.1 (8)

UN/NA NUMBER: UN2014

PACKING GROUP: II

LABEL: Oxidizer and Corrosive

OTHER SHIPPING INFORMATION: Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

CANADA TRANSPORT OF DANGEROUS GOODS

PROPER SHIPPING NAME: Hydrogen Peroxide, Aqueous Solutions

TECHNICAL NAME(S): Not applicable.

PRIMARY HAZARD CLASS/DIVISION: 5.1 (8)

UN/NA NUMBER: UN 2014

PACKING GROUP: II

LABEL: Oxidizer and Corrosive
OTHER SHIPPING INFORMATION: Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

AIR (ICAO/IATA)
PROPER SHIPPING NAME: Hydrogen Peroxide, Aqueous Solutions.
TECHNICAL NAME(S): Not applicable.
PRIMARY HAZARD CLASS/DIVISION: 5.1 (8)
UN/NA NUMBER: UN2014
PACKING GROUP: II
LABEL: Oxidizer and Toxic
PLACARDS: Consult applicable regulations governing air shipments.
IATA NOTE: Consult applicable regulations on packaging requirements.

15. REGULATORY INFORMATION
UNITED STATES
SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)
311/312 HAZARD CATEGORIES:
FIRE: No. PRESSURE GENERATING: No. REACTIVITY: Yes. ACUTE: Yes. CHRONIC: Yes.
313 REPORTABLE INGREDIENTS: Not applicable.
CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)
CERCLA RQ: Not applicable.
REPORTABLE SPILL QUANTITY: Not applicable.
RCRA STATUS: See section 13.

MEXICO
Regulated for ground transportation.

STATE REGULATIONS
MASSACHUSETTS
Hydrogen peroxide is regulated by the Massachusetts Substance List.

NEW JERSEY
Hydrogen peroxide is classified as a workplace hazard.

PENNSYLVANIA
Contains one or more substances on the Pennsylvania Hazardous Substance List.

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

16. OTHER INFORMATION

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SDS Revision Date: October 13, 2016