

**SECTION 1: Identification**

**Product identifier:** Solar-Bright  
**Other means of identification:** Bleach  
**SDS number:** 1210  
**Recommended use:** Bleach  
**Recommended restrictions:** Not for personal care

**Manufacturer/Importer/Supplier/Distributor information**

**Company name:** U.N.X. Incorporated  
**Address:** 707 Arlington Blvd  
Greenville, NC 27858  
**Telephone:** Office hour (Mon-Fri)  
8:00a.m. – 4:00p.m. (Eastern Time)  
OFFICE NUMBER: 252-756-8616  
**E-mail:** unx@unxinc.com  
**Emergency phone number:** CHEMTEL (800) 255-3924 (24 HOURS)

**SECTION 2: Hazard(s) identification****Classification of the substance or mixture:****Physical hazards**

H290 May be corrosive to metals  
H272 May intensify fire; oxidizer

**Health hazards**

Acute toxicity, Oral, Dermal and Inhalation Category 4  
Skin corrosion/irritation: Category 1A  
Serious eye damage/eye irritation: Category 1

**Label elements:**

**Signal word:** Danger

**Hazard statements**

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H242 Heating may cause a fire.  
H401 Toxic to aquatic life.

**SECTION 2: Hazard(s) identification (continued)****Precautionary statements****Prevention:**

- P101 If medical advice is needed, have product container or label at hand.  
 P102 Keep out of reach of children.  
 P103 Read label before use.  
 P210 Keep away from heat/sparks/open flames/ hot surfaces. No smoking.  
 P220 Keep/Store away from clothing and combustible materials.  
 P221 Take any precaution to avoid mixing with combustibles.  
 P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
 P262 Do not get in eyes, skin, or on clothing.  
 P264 Wash hands, arms, face and exposed skin thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this products.  
 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+312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304+P340 IF INHALED: Remove person to fresh air and keep 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.  
 P306+P360 IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.  
 P308+P313 If exposed or concerned: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P370+P378 In case of fire: Use water spray or water fog powder to extinguish.  
 P371+P380+P375 In case of major fire and large quantities: Evacuate area. Fight fire due to the risk of explosion.

**Storage:**

- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
 P405 Store locked up.  
 P406 Store in corrosive resistant container or in a container with a resistant inner liner.

**Disposal:**

- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise Classified (HNOC):** Not classified

**SECTION 3: Composition / information on ingredients****Substance/Mixtures**

Chemical name	CAS No.	Concentration (%)
Water	7732-18-5	40-45
Hydrogen Peroxide	7722-84-1	20-23
Peracetic Acid	79-21-0	14-16
Acetic Acid	64-19-7	14-16

## SECTION 4: First-aid measures

### Description of first aid measures

**General advice:** Remove victims from the danger zone without endangering your own safety. Remove contaminated clothing (including underwear and shoes) immediately.

**Inhalation:** Bring accident victims out into the fresh air. If not breathing, give artificial respiration. **WARNING:** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. If patient has difficulty breathing, administer oxygen, keep the patient calm and warm. In case of unconsciousness place patient stably in side position for transportation. Call a physician immediately.

**Skin contact:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before re-use. After contact with small amounts get medical attention if any discomfort or irritation continues. For large amounts, obtain medical attention.

**Eye contact:** Immediately flush eyes with gentle but large stream of water or eye wash solution for at least 15 minutes, lifting lower and upper eyelids occasionally. If possible remove any contact lenses and continue to wash. Call a physician, immediately.

**Ingestion:** If swallowed, rinse mouth with water (only if the person is conscious). Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. **DO NOT** induce vomit unless directed to do so by medical personnel. Call a physician, immediately.

### Most important symptoms/effects, acute and delayed:

**Notes to physician:** The severity of the symptoms described will vary dependent on the concentration and the length of exposure. The substance is toxic to the nervous system, lungs, and mucous membranes.

**Inhalation:** May cause irritation of respiratory system, consisting of coughing, difficult breathing, stomatitis, and pulmonary edema. Excessive inhalation of vapors can cause nasal and respiratory damage, dizziness, weakness, fatigue, nausea, vomiting, diarrhea, and possible unconsciousness.

**Ingestion:** Corrosive. Ingestion can cause mucous membrane burns, perforation of the esophagus and stomach, and laryngeal edema. May cause sore throat, abdominal pain and nausea. May affect the urinary system, liver, and blood. Severe exposures can lead to shock, circulatory collapse, and death.

**Skin contact/Skin irritation:** Contact with vapors, mists, and liquid are corrosive to the skin, and may cause permanent skin damage, redness, pain and severe skin burns.

**Eye contact:** Liquid and mist are corrosive to the eyes. May cause redness, pain, blurred vision, eye burns, and permanent eye damage. Brief contact of the liquid causes severe eye burns and possible blindness. May cause corneal damage, conjunctivitis, and/or lachrymation.

### Indication of immediate medical attention and special treatment needed, if necessary:

Cases of eye contact and ingestion should be treated immediately. Have facilities in place to wash skin and eyes in case of exposure. Ingestion damages mucous membranes and tissues of gastro-intestinal tract.

## SECTION 5: Fire-fighting measures

**Suitable extinguishing media:** Use any means suitable for extinguishing surrounding fire. Water spray may be used to keep fire exposed containers cool. Water spray will also reduce fume and irritant gases.

**Unsuitable extinguishing media:** Do not use water jet as this can spread the fire and may cause the splattering of this corrosive liquid. Do not use carbon dioxide in enclosed spaces with insufficient ventilation.

**Specific hazards arising from the chemical:** Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Hydrogen peroxide increases the flammability of combustible, organic and readily oxidizable materials. Contact with oxidizable substances may cause extremely violent combustion. Drying of concentrated hydrogen peroxide on clothing or other combustible materials may cause fire or explosion. Sealed containers may rupture or melt when heated and material will be combustible and provide fuel for the fire. In the event of fire and/or explosion do not breathe fumes. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Move containers from fire area if you can do so without risk.

**Special protective equipment and precautions for fire-fighters:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. During fire-fighting respirator with independent air-supply and airtight garment is required. Fight fire in early stages if safe to do so. Provide ventilation and be wary of hydrogen generation upon reactions with some metals.

## SECTION 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** Ventilate area of leak or spill. Ensure adequate ventilation/exhaust extraction. Put on protective equipment (see Section 8). Have emergency procedures in place for treating spillages, evacuating the area and informing the emergency services if necessary. Restrict access to non-emergency personnel until the spillage is treated, if large amounts of vapors are produced that will be hazardous to others, evacuate the area.

**Environment precautions:** Avoid unauthorized discharge of product into sanitary sewers system or to the environment. Clean up any spillages immediately; prevent material from spreading and entering drains or sewage systems. Large spillages or uncontrolled discharge to water systems must be alerted to the Environmental Agency or other regulatory body. If the product has entered a foul drain or sewage system in significant amounts to cause a hazard then the local water treatment company must be informed.

**Methods and materials for containment and cleaning up:** Contain and recover liquid when possible. Small spillages should be absorbed with an inert, non-combustible absorbent. Large Spillages: Dam and absorb spillages with sand, earth or other inert material. Small quantities (< 1 gallon) can be flushed to drain with lots of water. Fit drain covers where they are available if the spillage is likely to enter the drainage system. Collect spillage in containers, seal securely and deliver for disposal according to local regulations. Containers with collected spillage must be properly labeled with correct contents and hazard symbol. Flush area clean with lots of water. Be aware of potential for surfaces to become slippery. Ventilate area and allow drying before allowing access. Wash thoroughly after dealing with a spillage.

**Reference to other sections:** Refer to sections 8 and 13 for additional information.

## SECTION 7: Handling and storage

**Precautions for safe handling:** Keep in a closed container and protect from physical damage. Store in a cool, dry, and ventilated area. Keep away from sources of heat, moisture, incompatibilities, and away from direct sunlight. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Do not wash out container and use it for other purposes. Avoid ingestion and/or inhalation of any vapors/mists if produced, and any contact with skin or eyes. Wash at the end of each work shift, before eating, drinking, smoking and using the toilet. Remove contaminated clothing / footwear / equipment before entering eating areas or places that would expose others to the product. Avoid spilling the product. Do not use in areas close to drainage systems unless measures are in place to prevent access of product. Ensure emergency procedures are in place to treat spillages and cope with other situations such as evacuation. Provide eye washing and skin washing facilities, when handling large amounts a safety shower is recommended.

**Conditions for safe storage, including any incompatibilities:** Store container in a well-ventilated dark area at temperatures between 40°F and 80°F. Store separate from combustible substances, reducing agents, strong bases, and organics. Do not store on wooden shelves or floors. Containers must be vented, but check periodically for bulging containers which can burst from pressure. Protect containers from physical damage, contamination, heat, moisture and incompatibles. Contamination from any source (dust, metals) may cause rapid decomposition with generation of large quantities of oxygen gas and high pressures. Avoid storage for long period because the product degrades over time. If the product is transferred to another container, this should be made of a compatible material to the original container. Rinse empty containers thoroughly with clean water. Glass, polyethylene, stainless steel and aluminum are recommended materials for storage containers. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid.) Store in a stable situation to avoid spillages. It is advisable to store in a bunded area or use other protective measures such as a sump pallet or storage tray.

**Keep away from:** acids, alkalies, reducing agents, and combustibles. Store separate from: organic materials and metallic oxides.

**Suitable packaging material:** stainless steel, aluminum, glass, and polyethylene.

**Non suitable packaging material:** lead, copper, zinc, bronze, tin and glass.

## SECTION 8: Exposure control/personal protection

### Control Parameters

#### Occupational exposure limits

##### US.OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Chemical Name	CAS-No.	Type	Values	
Hydrogen peroxide	7722-84-1	PEL	1 ppm	1.4 mg/m <sup>3</sup>
Acetic Acid	64-19-7	TWA	10 ppm	25 mg/m <sup>3</sup>
		STEL	15 ppm	25 mg/m <sup>3</sup>

##### U.S. ACGIH Threshold Limit Values

Chemical Name	CAS-No.	Type	Values	
Hydrogen peroxide	7722-84-1	TWA	1 ppm	
Acetic Acid	64-19-7	TWA	10 ppm	
		STEL	15 ppm	

## SECTION 8: Exposure control/personal protection (continued)

### Appropriate engineering controls:

#### **Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the defined exposure limit requirements or guidelines. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition for details.

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

**Eye Protection:** Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

**Skin Protection:** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Hand protection:** Wear protective gloves. Butyl rubber, rubber (natural, latex), nitrile, polyvinyl chloride (PVC). Be aware that latex gloves can produce an allergic reaction in sensitive individuals. Gloves should have a breakthrough time sufficient for the amount of handling but allow dexterity for safe movement and handling. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Gloves showing signs of degradation should be changed to avoid skin contamination. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. When removing used gloves apply proper technique by avoiding skin contact with the outer surface. When packages of the product are being handled during storage or transport it is advisable to wear protective gloves to prevent damage to the skin.

**Personal Respirators (NIOSH Approved):** If the exposure limit is exceeded, a full face piece respirator with high efficiency dust/mist filter may be worn up to 50 times the exposure limit. Wear suitable respiratory protection when vapors or mists are produced if the Workplace Exposure Limit is exceeded and there is insufficient ventilation or extraction. For emergencies or instances where the exposure levels are not known, use a full face piece positive-pressure, air-supplied respirator. Respirator must be fitted with a cartridge suitable for the chemical of concern. Consult with the supplier as to the compatibility of the equipment with the chemical of concern. CAUTION: Air purifying respirators do not protect the user in oxygen deficient atmospheres, use air supplied system.

**Thermal Hazards:** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations:** Wash hands, change out of clothes as soon as possible. Wash clothes. Shower or bathe as soon as possible.

**Other protective measures:** Have an eye bath and safety shower close by.

## SECTION 9: Physical and chemical properties

<b>Appearance:</b>	Liquid
<b>Colour:</b>	Clear liquid
<b>Odour:</b>	Pungent odor
<b>Odour Threshold:</b>	No data available
<b>pH:</b>	2.1 – 4.0
<b>Melting point/range:</b>	No data available
<b>Boiling point/range:</b>	No data available
<b>Flash point:</b>	No data available
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Upper/lower flammability of explosive limits:</b>	No data available
<b>Vapour pressure (mm Hg):</b>	No data available
<b>Vapour density (Air=1):</b>	No data available
<b>Relative density:</b>	No data available
<b>Solubility(ies):</b>	Excellent
<b>Partition coefficient (n-octanol/water):</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity, dynamic:</b>	25

**Other Information:** This product does not contain phosphates.

## SECTION 10: Stability and reactivity

**Reactivity and/or chemical stability:** Normally stable if uncontaminated, but slowly decomposes to release Oxygen. Unstable with heat, may result in dangerous pressures. A strong oxidizer, reacts violently upon contact with many organic substances, particularly textile and paper. Avoid light and keep in a closed but vented container to prevent evaporation (concentration) and contamination. If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

**Possibility of hazardous reactions:** Hazardous polymerization will not occur.

**Conditions to avoid:** Avoid heat, freezing, direct sunlight, and moisture. Avoid storage with incompatible materials. Avoid storage in an unstable manner or in a situation that would result in exposure to the product. It is advisable to store the product within some form of containment to prevent spillages reaching drainage systems. Do not allow the storage container to be left exposed to the atmosphere. Avoid contact with combustible or organic material.

**Incompatible materials:** Heat, reducing agents, organic materials, dirt, alkalis, rust, and many metals. Spontaneous combustion may occur on standing in contact with readily flammable materials.

**Hazardous decomposition products:** Decomposes to water and oxygen with rapid heat release. The solution can decompose violently upon heating. Use vented containers.

**SECTION 11: Toxicological information**

**Acute toxicity:** Toxicological testing has not been conducted with this material. The toxicology information listed below is based on the components of this material.

Category 4- Oral, Dermal and Inhalation: Harmful if swallowed, in contact with skin or if inhaled.

<b>Hydrogen Peroxide</b>		
Oral LD <sub>50</sub> 1,232 mg/kg (Rat)	Dermal LD <sub>50</sub> > 2,000 mg/kg (Rabbit)	Inhalation LD <sub>50</sub> 2.0 mg/kg, 4h, (Rat)

<b>Peracetic acid 5% (Acute toxicity)</b>				
Oral- LD <sub>50</sub> Rat:1,859 mg/kg	Dermal- LD <sub>50</sub> Rat: 1,147 mg/kg	Inhalation- Approximate Lethal concentration Rat: 0.49 mg/l	Skin irritation: Rabbit- 10.75h corrosive	Eye irritation: Rabbit corrosive

**Skin Corrosion/ irritation:** Category 1: Causes severe skin burns and eye damage.

**Serious eye damage/irritation:** Category 1: Causes serious eye damage.

**Respiratory or skin sensitization:** Test substance: Peracetic acid. Buehler Test guinea pig: negative

**Germ cell mutagenicity:** Classification not possible.

**Carcinogenicity:** Classification not possible.

**Reproductive toxicity:** Classification not possible.

**Specific Target Organ Toxicity - Single Exposure:** Classification not possible.

**Specific Target Organ Toxicity - Repeated Exposure:** Classification not possible.

**Aspiration hazard:** Classification not possible.

**SECTION 12: Ecological information**

**Toxicity:** Do not allow to escape into waterways, wastewater or soil. Ecotoxicological studies of the product are not available. Please find below the data available to us from raw materials:

<b>Hydrogen Peroxide</b>		
EC <sub>50</sub> Algae: 2.5 mg/l (72 hrs)	EC <sub>50</sub> Daphnia: 2.4 mg/l (48 hrs)	LC <sub>50</sub> Fish: 16.4mg/l (96 hrs)



## SECTION 12: Ecological information

Paracetic Acid			
LC <sub>50</sub> Pleuronectes platessa: 11 mg/l, 96 h	EC <sub>50</sub> Daphnia magna: 0.5-1.1 mg/l, 48 h	IC <sub>50</sub> selenastrum capricornutum: ca. 0.18 mg/l, 120 h	EC <sub>50</sub> Activated sludge: 5.1 mg/l, 3h
LC <sub>50</sub> Oncorhynchus mykiss: 1-2 mg/l, 96 h			

**Persistence and degradability:** Readily biodegradable. Exposure time: 28 days. Method: OECD TG 301 E.

**Bioaccumulative potential:** No bioaccumulation expected.

**Mobility in soil:** This material is a mobile liquid.

**Other adverse effects:** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## SECTION 13: Disposal considerations

### General information

Do not allow unauthorized disposal to the environment. If operators are exposed to vapors during the disposal process then suitable respiratory protection should be worn. All other personal protective equipment as described in section 8 should be worn.

### Disposal methods:

Avoid unauthorized disposal. Do not dump into any sewers, on the ground, or into any body of water. All disposal practices must be in compliance with federal, state/provincial and local laws and regulations. For a small spill, immediately hose down with cool water and dispose to drain. For a large spill, dike, collect and contact local authorities about disposal.

## SECTION 14: Transport information

**UN Number:** UN 3109  
**UN Proper Shipping Name:** ORGANIC PEROXIDE TYPE F, LIQUID  
(≤25% Peracetic Acid with ≤26% Hydrogen Peroxide)  
**Transport hazard class(es):**  
**DOT Hazard Class:** 5.2 (8)  
**DOT Subsidiary Hazard Class:** Not available  
**Label:** Organic Peroxide  
**Packing group, if available:** Not available.  
**Environmental Hazards:** Yes  
**Special precautions for user:** Not available.

**Transport in bulk according to Annex II of MARPOL 73/78<sup>3</sup> and the IBC Code <sup>3</sup>:** Not applicable.

## SECTION 15: Regulatory information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

Unless otherwise noted, no components are SARA TITLE 3 SECTION 313 40 CFR listed materials.

The ingredients of this product are listed on the TSCA inventory.

This product is not made with VOC'S that could cause damage to the ozone layer.

### SARA TITLE III- Section 311/312 Hazard Categories:

Acute Health Hazard, Fire Hazard, Reactivity Hazard

### SARA TITLE III- Section 313 Toxic Chemicals:

SARA 313: 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.

### OSHA Regulated Carcinogens (NTP, IARC, OSHA Listed):

**NTP:** 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.

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

**OSHA:** 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.

### CERCLA Reportable Quantities

If listed below, a reportable quantity (RQ) applies to the product based on the percent of the named component:

- Acetic acid  
CAS-No. 64-19-7  
Reportable Quantity 73529 lbs

### United States- State Regulations

#### Massachusetts Right to Know

Chemical Name: Hydrogen Peroxide CAS-No.: 7722-84-1

#### Massachusetts Right to Know- Extraordinarily Hazardous Substance(s)

Chemical Name: Hydrogen Peroxide CAS-No.: 7722-84-1

#### New Jersey Right to Know

Chemical Name: Hydrogen Peroxide CAS-No.: 7722-84-1

#### New Jersey Right to Know- Extraordinarily Hazardous Substance(s)

Chemical Name: Hydrogen Peroxide CAS-No.: 7722-84-1

#### Pennsylvania Right to Know

Chemical Name: Hydrogen Peroxide CAS-No.: 7722-84-1  
Water 7732-18-5

**SECTION 15: Regulatory information (continued)**

**Pennsylvania Right to Know- Extraordinarily Hazardous Substance**

Chemical Name: Hydrogen Peroxide CAS-No.: 7722-84-1

**California Prop 65 Components:** This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other productive defects.

**OSHA Classification:** Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

**SECTION 16: Other information including date of preparation or last revision**

**Chemical State:** Liquid  
**Chemical Type:** Mixture

Issue Date: 12-17-2014  
Revision Date: 09-28-2017  
Version #: 03

3	Health
1	Flammability
1	Physical Hazard
C	Personal Protection

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