



FOR ANY EMERGENCY, 24 HOURS/7 DAYS, CALL:	1-800-222-1222
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:	1-800-424-9300 (OUTSIDE USA: 1-703-527-3887)
FOR ALL SDS QUESTIONS & REQUESTS, CALL:	1-844-692-4772

**PRODUCT NAME: pHin™ Dark Green Striped Pods, Non-Chlorine Shock Oxidizer for Hot Tubs**

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Other means of identification</b>	<b>Not Available</b>
<b>Recommended use</b>	<b>Chlorine-free shock oxidizer</b>
<b>Recommended restrictions</b>	<b>None known</b>
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Manufacturer</b>	
<b>Company name</b>	ConnectedYard Inc.
<b>Address</b>	380 Portage Avenue Palo Alto, CA 94306 USA
<b>Telephone</b>	+18446924772
<b>E-mail</b>	Not available
<b>Emergency phone number</b>	<b>+18446924772</b>

**SECTION 2. HAZARDS IDENTIFICATION**

Physical hazards:	Corrosive to metals	Category 1
Health hazards:	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
Environmental hazards:	Not classified	
OSHA defined hazards:	Not classified	
Label elements:		





Signal word:	Danger
Hazard statement:	May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage.
Precautionary statements:	
<b>Prevention:</b>	Keep only in original container. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust. Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response:</b>	Absorb spillage to prevent material damage. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. 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/doctor. If inhaled: Remove person to fresh air and keep comfortable for breathing. Specific treatment (see this label).
<b>Storage:</b>	Store locked up. Store in corrosive resistant container with a resistant inner liner.
<b>Disposal:</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC):	None known.
Supplemental information:	1.65% of the mixture consists of component(s) of unknown acute oral toxicity.

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Pentapotassium Bis(peroxymonosulphate) Bis(sulphate)		70693-62-8	73-82
Sodium carbonate		497-19-8	11-17
Potassium persulfate		7727-21-1	1-4
Dihydroxypentamagnesium, tetrakis[carbonato(-2)]		7760-50-1	1-2

The specific percentages of composition are withheld as trade secrets.

## SECTION 4. FIRST AID MEASURES

Inhalation:	IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
Skin contact:	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
Eye contact:	IF IN EYES: Rinse cautiously with water for several minutes. Remove Contact lenses, if present and easy to do. Continue rinsing.
Ingestion:	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Most important symptoms symptoms/effects, acute and delayed:	Burning pain and severe corrosive skin damage. Causes serious eye damage. Dusts may irritate the respiratory tract, skin and eyes. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed:	Provide general supportive measures and treat symptomatically. In case shortness of breath, give oxygen. Symptoms may be delayed.
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.

## SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media:	Water spray.
Unsuitable extinguishing media:	Do not use carbon dioxide or other gas-filled fire extinguishers; they will have no effect on decomposing persulfates.



Specific hazards arising from chemical:	During fire, gases hazardous to health may be formed. Will release the oxygen when heated, intensifying a fire. Acidic mist may be present; self contained breathing apparatus should be used.
Special protective equipment and precautions for firefighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions:	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods:	Cool containers exposed to flames with water until well after the fire is out.
General fire hazards:	Improper storage of large masses of "OXONE" or blended "OXONE" can trap heat and lead to ignition of combustibles (see section on "Handling and Storage"). Grinding or intensive mixing may cause decomposition with liberation of heat and oxygen; ignition of oxidizable material if present may occur.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures:	Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Wear a dust mask if dust is generated above exposure limits. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of dust from the spilled material. Ensure adequate ventilation.
Methods and materials for containment and cleaning up:	Sweep up material and place in a disposal container without raising dust. Collect dust using a vacuum cleaner equipped with HEPA filter. Minimize dust generation and accumulation. Prevent entry into waterways, sewers or confined areas.
Environmental precautions:	Avoid discharge into drains, water courses or onto the ground.

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## **SECTION 7. HANDLING AND STORAGE**

Precautions for safe handling:	Keep away from heat/sparks/open flames/hot surfaces. No smoking. Take any precaution to avoid mixing with combustibles. Do not breathe dust. Avoid contact with eyes, skin and clothing. Do not taste or swallow. Avoid prolonged exposure. Provide adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Practice good housekeeping.
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Conditions for safe storage, including any incompatibilities: Store locked up. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Store in corrosive resistant container with a resistant inner liner. Keep only in the original container. Store in a cool, dry place out of direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Do not store near combustible materials.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Occupational exposure limits:

**US. ACGIH Threshold Limit Values**

Components	Type	Value
Potassium persulfate (CAS 7727-21-1)	TWA	0.1 mg/m3

Biological limit values: No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls: Not normally required if good ventilation is maintained.

Individual protection measures, such as personal protective equipment

Eye/face protection: Face shield or chemical goggles.

Skin protection:

Hand protection: Rubber gloves. Confirm with a reputable supplier first.

Other: Not available.

Respiratory protection: Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.

Thermal hazards: Wear appropriate thermal protective clothing, when necessary.

General hygiene Considerations: 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. Contaminated work clothing should not be allowed out of the workplace. Wash hands after handling and before eating.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Granular solid

Physical state: Solid

Form: Powder

Color: Clear

Odor: Odorless

Odor threshold: Not available.

pH: 6.9-8.2

Melting point/freezing point: Not available.

Initial boiling point and boiling range: Not available.



Pour point:	Not available.
Specific gravity:	Not available.
Partition coefficient (n-octanol/water):	Not available.
Flash point:	Not available.
Evaporation rate:	Not available.
Flammability (solid, gas):	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%):	Not available.
Flammability limit - upper (%):	Not available.
Explosive limit - lower (%):	Not available.
Explosive limit - upper (%):	Not available.
Vapor pressure:	Not available.
Vapor density:	Not available.
Bulk density:	1091-1346 kg/m <sup>3</sup>
Solubility(ies):	Not available.
Auto-ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Viscosity:	Not available.

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## SECTION 10. STABILITY AND REACTIVITY

Reactivity:	Do not mix with other chemicals.
Possibility of hazardous reactions:	No dangerous reaction known under conditions of normal use.
Chemical stability:	Material is stable under normal conditions.
Conditions to avoid:	Keep away from heat, sparks and open flame.
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition Products:	May include and are not limited to: Sulfur oxides. Oxygen.

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## SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Ingestion:	Harmful if swallowed. Causes digestive tract burns.
Inhalation:	Inhalation of dusts may cause respiratory irritation.
Skin contact:	Causes severe skin burns.
Eye contact:	Causes serious eye damage.



Symptoms related to the physical, chemical and toxicological characteristics:

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects:

Acute toxicity Harmful if swallowed.

Components	Species	Test Results
Dihydroxypentamagnesium, tetrakis[carbonato(-2)] (CAS 7760-50-1)		
<b>Acute</b> <i>Dermal</i> LD50	Not available	
<i>Inhalation</i> LC50	Not available	
<i>Oral</i> LD50	Rat	> 5000 mg/kg
Potassium persulfate (CAS 7727-21-1)		
<b>Acute</b> <i>Dermal</i> LD50	Rabbit	> 10000 mg/kg
<i>Inhalation</i> LC50	Rat	> 5 mg/L
<i>Oral</i> LD50	Rat	802 mg/kg
Sodium carbonate (CAS 497-19-8)		
<b>Acute</b> <i>Dermal</i> LD50	Rat	> 2000 mg/kg
<i>Inhalation</i> LC50	Guinea pig	400 mg/m3
		0.8 mg/l, 2 Hours
	Mouse	1.2 mg/l, 2 Hours
	Rat	2.3 mg/l, 2 Hours
<i>Oral</i> LD50	Rat	4090 mg/kg



Skin corrosion/irritation: Causes severe skin burns and eye damage.  
 Exposure minutes: Not available.  
 Erythema value: Not available.  
 Oedema value: Not available.  
 Serious eye damage/eye irritation: Causes serious eye damage.  
 Corneal opacity value: Not available.  
 Iris lesion value: Not available.  
 Conjunctival reddening value: Not available.  
 Conjunctival oedema value: Not available.  
 Recover days: Not available.  
 Respiratory or skin sensitization:  
 Respiratory sensitization: Not classified.  
 Skin sensitization: Not available.  
 Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.  
 Carcinogenicity: This product is not considered to be a carcinogen by IARC, NTP, or OSHA.  
 US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)  
 Not listed.  
 Reproductive toxicity: This product is not expected to cause reproductive or developmental effects.  
 Specific target organ toxicity - single exposure: Not classified.  
 Specific target organ toxicity - repeated exposure: Not classified.  
 Aspiration hazard: Not available.  
 Chronic effects: Prolonged inhalation may be harmful.  
 Further information: Not available.

**SECTION 12. ECOLOGICAL INFORMATION**

Ecotoxicity:		See below		
<b>Components</b>		<b>Species</b>		<b>Test Results</b>
Sodium carbonate (CAS 497-19-8)				
Crustacea	EC50	Daphnia		265 mg/L, 48 Hours
<b>Aquatic</b>				
Crustacea	EC50	Water flea (Ceriodaphnia dubia)		156.6 - 298.9 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)		300 mg/l, 96 hours





Persistence and degradability: No data is available on the degradability of this product.  
Bioaccumulative potential: No data available.  
Mobility in soil: No data available.  
Mobility in general: Not available.  
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.

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### **SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations: Dispose in accordance with all applicable regulations.  
Hazardous waste code: The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues/  
unused products: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

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### **SECTION 14. TRANSPORT INFORMATION**

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number: UN3260  
Proper shipping name: Corrosive solid, acidic, inorganic, n.o.s. (Monopersulfate compound)  
Hazard class: 8  
Packing group: II  
Special provisions: IB8, IP2, IP4, T3, TP33  
Packaging exceptions: 154  
Packaging non bulk: 212  
Packaging bulk: 240



DOT

**SECTION 15. REGULATORY INFORMATION**

US federal regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D):  
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4):  
Not listed.

US OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):  
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA):

Hazard categories: Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

SARA 302 Extremely hazardous substance: No

SARA 311/312 Hazardous chemical: No

SARA 313 (TRI reporting): Not regulated.

Other federal regulations:

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List:  
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):  
Not regulated.

Safe Drinking Water Act (SDWA):  
Not regulated.

Food and Drug Administration (FDA):  
Not regulated.



US state regulations: CA Reg. No 11411-50017  
 California Safe Drinking Water and Toxic Enforcement Act of 1986  
 (Proposition 65): This material is not known to contain any chemicals  
 currently listed as carcinogens or reproductive toxins.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance:  
 Not listed.

US - New Jersey RTK - Substances: Listed substance:  
 Potassium persulfate (CAS 7727-21-1) Listed.

US - Texas Effects Screening Levels: Listed substance:  
 Potassium persulfate (CAS 7727-21-1) Listed.  
 Sodium carbonate (CAS 497-19-8) Listed.

US - Massachusetts RTK - Substance List:  
 Potassium persulfate (CAS 7727-21-1) Listed.

US - Pennsylvania RTK - Hazardous Substances:  
 Potassium persulfate (CAS 7727-21-1) Listed.

US - Rhode Island RTK:  
 Not regulated.

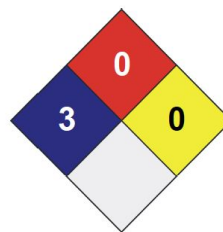
Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

**SECTION 16. OTHER INFORMATION**

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	* 3
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X



**Disclaimer:** The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.



**Issue Date:** October 05, 2016

**Further information:** For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

**Other information:** This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). This chemical is a pesticide product registered by the the California Department of Pesticide Regulations (DPR) and is subject to certain labeling requirements under the California pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

**PRECAUTIONARY STATEMENTS: DANGER CORROSIVE CAUSES SKIN AND EYE DAMAGE.** May be harmful if swallowed. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling. Irritating to nose and throat. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, smoking tobacco or using the toilet. Remove and wash contaminated clothing after use.

**PHYSICAL OR CHEMICAL HAZARD: STRONG OXIDIZING AGENT.** Mix only into water, using clean, dry utensils. Never add water to product. Always add product to large quantities of water. Do not mix with other chemicals. Do not add this product to any dispensing device containing remnants of any other product. Such use or contamination with moisture, organic matter or other chemicals, may cause a violent reaction leading to fire or liberation of hazardous gases. In such case of contamination or decomposition, do not reseal container. If possible, isolate container in open air or well ventilated area. Flood with large amounts of water. Dell Tech Laboratories Ltd. Phone: (519) 858-5021.