

**POLYDEX - MATERIAL SAFETY DATA SHEET**
**Section 1: Product Information**

<b>Product name:</b>	<b>POLYDEX <i>Bacteriostatic Algaecide</i></b>
<b>PCP Number:</b>	Master Copy Registration # 27770
<b>Manufacturer:</b>	OCION Water Sciences Group Ltd. (formerly EnvirEau Technologies, Inc.)
<b>Supplier:</b>	Canadianpond.ca Products Ltd., 513 Knowlton Rd. Lac-Brome, Quebec, J0E 1V0, Canada
<b>Phone number:</b>	450 243-0976 Fax: 450 243-1834
<b>Emergency phone number:</b>	Canada, USA: 1 800 535-5053 International 001 352 323-3500
<b>Product use:</b>	A bacteriostatic algaecide to control algae and problematic bacteria in potable water.

**Section 2: Hazard Identification**

<b>Emergency Overview</b>	Caution-Poison. Keep out of reach of children. Avoid contact with skin, eyes and clothing. Avoid breathing spray mist or vapors. Causes irritation to eyes. May cause skin irritation. Harmful if swallowed or inhaled. Unless diluted to the correct concentration, this product is toxic to fish, aquatic invertebrates and some aquatic plants.
<b>Potential Health Effects</b> (see toxicological information)	Eyes: This product may cause eye irritation. Skin: Prolonged or repeated exposure may cause skin irritation. Ingestion: Swallowing this product may cause copper toxicity or sulfur allergies. Inhalation: Excessive exposure may cause irritation and/or allergies in the respiratory tract.

**Section 3: Composition/Information on Ingredients**

<b>Hazardous components</b>	Ionic copper (active ingredient) Cu <sup>2+</sup> from NSF 60 potable grade copper sulphate, CAS # 7758-99-8, EINECS # 231-847-6. Proprietary hydrophilic aqua ion stabilizer 95% (includes a mixture of 3.7% sulphuric acid, plus stabilizers, buffering agents, sequestering agents, dispersing agents and water).
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**Section 4: First-Aid Measures**

<b>Eye:</b>	Flush immediately with water for 15 minutes
<b>Skin:</b>	Wash with soap and water, remove and wash contaminated clothing
<b>Inhalation:</b>	Provide fresh air. Consult doctor if unwell.
<b>Ingestion:</b>	Treat as sulfur base.

**Section 5: Fire and Explosion Hazard Data**

<b>Flammability: Yes/No</b>	No
<b>Condition of flammability:</b>	Not applicable
<b>Flash point (C/F) = method:</b>	Not applicable
<b>Upper flammable limit (% by volume):</b>	Not applicable
<b>Lower flammable limit (% by volume):</b>	Not applicable
<b>Auto-ignition temperature:</b>	Not applicable
<b>Extinguishing media:</b>	Not applicable
<b>Hazardous combustion products:</b>	Dry chemical: N/A      Dioxide: N/A      Other: N/A
<b>Explosion data:</b>	Not applicable
<b>Sensitivity to impact or static discharge</b>	None

**Section 6: Accidental Release Measures**

<b>Steps to be taken in the event of spill or release:</b>	Notify applicable Government Authority if spill is significant. Contain spill. Prevent entry into water intakes, sewers and waterways. Avoid vapor created by heat. Flush with water into retaining area or container and dilute with water. Neutralize with sodium bicarbonate or lime.
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**Section 7: Handling and Storage**

<b>Special protection information:</b>	Provide adequate ventilation
<b>Respiratory protection:</b>	Provide adequate ventilation
<b>Protective clothing:</b>	Wear chemical resistant gloves
<b>Eye protection:</b>	Wear chemical resistant goggles
<b>Other protective equipment:</b>	Use protective clothing
<b>Handling procedure &amp; storage requirements:</b>	Avoid storing in excessive heat; expansion of container may occur creating spillage. Do not freeze

**Section 8: Special Handling and Storage Requirements**

<b>Precautions-Handling/Storing:</b>	Store in covered area. Do not allow the product to freeze. Protect containment from physical damage. Store in well ventilated area. Use protective clothes, goggles and nitrile gloves. Wash hands after working with product.
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**Section 9: Physical and Chemical Properties**
**POLYDEX**

<b>Appearance: (Physical state, &amp; color)</b>	Clear, blue liquid
<b>Odor:</b>	Odorless
<b>Odor threshold concentration: (ppm)</b>	Not applicable
<b>Density/specific gravity: (H<sub>2</sub>O = 1)</b>	1.19
<b>Vapor pressure at 20° C: (mmHg)</b>	0.1
<b>Vapor density: (Air = 1)</b>	1
<b>Evaporation rate:</b>	N/A
<b>Boiling point: (C/F)</b>	104°C
<b>Freezing point: (C/F)</b>	0°C
<b>pH:</b>	0.7 (buffered)
<b>Coefficient of water/oil distribution:</b>	N/A

**Section 10: Reactivity Data**

<b>Chemical stability: (Yes/No)</b>	Yes
<b>Conditions of stability:</b>	A very stable compound
<b>Conditions of product reactivity:</b>	Chelates Iron, Zinc, Magnesium, Manganese, Copper, and other metals
<b>Incompatibility (materials to avoid)</b>	Avoid mixing with strong bases
<b>Hazardous decomposition products:</b>	Sulfuric fumes may be generated by thermal decomposition

**Section 11: Toxicological Information in concentrate form**

<b>Acute Toxicity:</b>	LD 50 (Oral, Rat) Category III - 1.57 g/kg LD 50 (Dermal, Rat) Category III – 2.0 g/kg
<b>Vapor Inhalation</b>	Irritation of mucous membranes, coughing, difficulty breathing
<b>Skin Contact</b>	Irritation, redness, lesions with extended exposure
<b>Eye Contact</b>	Inflammation of mucous membranes
<b>Ingestion</b>	Gastric pain, vomiting, diarrhea, drop in blood pressure, collapse, acidosis, after a latency period; death

**Section 12: Ecological Information**

<b>Biological Degradation</b>	Methods for determination not applicable to inorganic substances
<b>Toxicity for Aquatic Organisms</b>	High toxicity to many aquatic organisms
<b>Fish Toxicity</b>	Salmon LC 50: 0.025 – 0.20 mg per litre/96 hours
<b>Daphnia Toxicity</b>	Daphnia sp. LC 50: 0.08 mg per litre/96 hours
<b>Algal Toxicity:</b>	Sc. basilensis inhibitory concentration 0.20 mg per litre
<b>Fungicidal effect</b>	Strong fungicide

**Section 13: Disposal Considerations**

<b>Use for approved uses</b>	Do not allow to enter water, wastewater or soil except as allowed by local and national regulations.
<b>Use as fertilizer or in organic waste</b>	May be neutralized with sodium bicarbonate or lime

**Section 14: Transportation**

<b>Transportation of Dangerous Good Act Classification</b>	Primary: 3264;
<b>Packing Group:</b>	III
<b>Product Shipping Name</b>	UN 3264, Corrosive Liquid, Acidic, Inorganic, N.O.S. (Sulphuric acid, cupric sulphate) Class 8, PG III, Marine Pollutant
<b>Class</b>	8
<b>Marine Pollutant</b>	Yes

**Section 15: Regulatory Information**

<b>Maximum Use Level</b>	In order to comply with NSF Standard 60 for drinking water applications, use a maximum of 19 mg of <b>POLYDEX</b> per litre of receiving water. Maximum use level for drinking water applications to comply with Health Canada PCP registration is 1 part per million of total copper.
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**Section 16: Other Information**

For algae control apply 1:600,000 to 1:60,000 depending on local conditions.  
See label for directions. For assistance call 1 866 249-0976  
Canadianpond.ca Products Ltd.

Publishing date: August 2013  
END OF MSDS

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