



Section 1: Product Information

POLYDEX - MATERIAL SAFETY DATA SHEET

Product name:	POLYDEX <i>Bacteriostatic Algaecide</i>
Supplier/manufacturer:	OCION Water Sciences Inc. Unit 109 - 19347, Surrey, BC, V3Z 3S9, Canada
Phone number:	(604) 270.2639 Fax: (604) 270.2689
Emergency phone number:	24hr Emergency: US & Canada 1-800-535-5053 INFOTRAC International 1-352-323-3500
Product use:	Bacteriostatic Algaecide

Section 2: Hazard Identification

Emergency Overview	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.
Potential Health Effects (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

Hazardous components	5.0-5.2% Water soluble ionic copper from NSF 60 potable grade copper sulfate (CAS# 7758-99-8) (CAS# 7758-99-8, EINECS # 231-847-6). 94.8-95 % inert ingredients including OCION's AIM technology (buffering agents, stabilizers, and dispersing agents, 3.1% sulfuric acid.)
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Section 4: First-Aid Measures

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

Section 5: Fire and Explosion Hazard Data

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

Section 6: Accidental Release Measures

Steps to be taken in the event of spill or release:	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

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

Section 8: Special Handling and Storage Requirements

Precautions-Handling/Storing:	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

Appearance: (Physical state, & color)	Clear, blue liquid
Odor:	Odorless
Odor threshold concentration: (ppm)	Not applicable
Density/specific gravity: (H₂O = 1)	1.19
Vapor pressure at 20° C: (mmHg)	0.1
Vapor density: (Air = 1)	1
Evaporation rate:	N/A
Boiling point: (C/F)	104°C
Freezing point: (C/F)	0°C
pH:	0.7 (buffered)
Coefficient of water/oil distribution:	N/A

Section 10: Reactivity Data

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

Section 11: Toxicological Information in concentrate form

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

Section 12: Ecological Information

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

Section 13: Disposal Considerations

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

Section 14: Transportation

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

Section 15: Regulatory Information

Maximum Use Level	In order to comply with NSF Standard 60 for drinking water applications, use a maximum of 19 mg of POLYDEX 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 your distributor or OCION Water Sciences Ph.: 604 270 2639 email: info@ocion.com

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END OF MSDS