Material Safety Data Sheet

SC-1000 Scale Control & Metal Chelant **MSDS No. SC**

Date of Preparation: July 2006 Revision: 0

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: SC-1000 Scale Control & Metal Chelant
Chemical Formula: Proprietary & Patent Pending.
CAS Number: N/A
Other Designations: N/A.
General Use: Scale control and metals chelation in recreational water systems.
Manufacturer: Pure Planet Science,Inc. dba Orenda Technologies, 1607 Wheatberry Ct. AllenTexas 75002 Tel: (928) 522-0194 Fax: (888) 215-5758 (emergency/informational telephone/fax numbers).

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt *or* % vol
The precise composition of SC-1000 Scale Control & Metal Chelant is proprietary information. A more complete disclosure will be made to an attending physician in the event of a medical emergency involving this product. When utilized in accordance with Orenda Technologies, Inc. instructions, SC-1000 Scale Control & Metal Chelant is considered to be nontoxic and nonhazardous.	N/A	N/A

Trace Impurities: None.

	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
Ingredient	**TWA**	**STEL**	**TWA**	**STEL**	**TWA**	**STEL**	**IDLH**
Proprietary	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Section 3 - Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Potential Health Effects

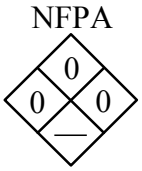
HMIS	
H	0
F	0
R	0
PPE†	
†Sec. 8	

Primary Entry Routes: By ingestion and through skin contact.
Target Organs: None known.
Acute Effects
Inhalation: None**.**
Eye: Not expected to be irritating..
Skin: Possible drying of contacted skin surfaces.
Ingestion: Possible mild gastrointestinal irritation.
Carcinogenicity: IARC, NTP, and OSHA do not list SC-1000 Scale Control & Metal Chelant as a carcinogen.
Medical Conditions Aggravated by Long-Term Exposure: None known.
Chronic Effects: There are no known chronic effects.

Section 4 - First Aid Measures

Inhalation: In the improbable event of product mist inhalation, remove the affected individual to fresh air and provide artificial respiration as required. Obtain medical attention.
Eye Contact: Flush thoroughly with water for five minutes and obtain medical attention if irritation of eye membranes occurs.
Skin Contact: Wash contacted areas with soap and water.
Ingestion: Drink several glasses of water. Obtain medical attention if gastrointestinal irritation occurs.
After first aid, get appropriate in-plant, paramedic, or community medical support if exposure symptoms persist.
Note to Physicians: Under normal use and human exposure conditions, the product is considered nontoxic and nonhazardous.
Special Precautions/Procedures: None.

Section 5 - Fire-Fighting Measures



Flash Point: (> 200°F).
Flash Point Method: N/A
Burning Rate: N/A
Autoignition Temperature: N/A
LEL: N/A
UEL: N/A
Flammability Classification: N/A.
Extinguishing Media: N/A
Unusual Fire or Explosion Hazards: None.
Hazardous Combustion Products: Thermal oxidative decomposition of the product may release toxic fumes of CO, CO_2 and NO_x.
Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.
Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill /Leak Procedures:
Small Spills: Flush small spills of five gallons or less with water to a sanitary sewer.
Large Spills
Containment: For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.
Cleanup: Use vacuum or absorbent methods to recover bulk of spilled material. Flush residual spilled product to a sanitary sewer.
Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Wear appropriate eye and glove protection to minimize exposure.
Storage Requirements: Do not store with oxidizing materials, or at temperatures below freezing or above 110°F.
Regulatory Requirements: None established.

Section 8 - Exposure Controls / Personal Protection

Engineering Controls:
Ventilation: In the improbable event of product misting, provide general or local exhaust ventilation systems to minimize airborne concentrations. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.
Administrative Controls:
Respiratory Protection: If product misting occurs, follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. . If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.
Protective Clothing/Equipment: Wear chemically protective gloves to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.
Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove material from your shoes and clean personal protective equipment after use.
Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. KEEP AWAY FROM CHILDREN!

Section 9 - Physical and Chemical Properties

Physical State: Liquid.
Appearance and Odor: Blue, no odor.
Odor Threshold: Not determined.
Vapor Pressure: Not determined.
Vapor Density (Air=1): N/A.
Formula Weight: Proprietary
Density: 11.13 lbs./gallon, typical.
Specific Gravity (H_2O=1, at 4 °C): 1.335 typical.
pH: 10.3 – 11.4

Water Solubility: Complete.
Other Solubilities: Insoluble in hydrocarbons.
Boiling Point: 212°F (Typical).
Freezing Point: 30°F (Typical).
Viscosity: Not determined.
Refractive Index: Not determined.
Surface Tension: Not determined.
% Volatile: Not determined.
Evaporation Rate: Not determined.

Section 10 - Stability and Reactivity

Stability: SC-1000 Scale Control & Metal Chelant is stable at room temperature in closed containers under normal storage and handling conditions.
Polymerization: Hazardous polymerization cannot occur.
Chemical Incompatibilities: Direct contact with oxidizing materials may degrade product activity.
Conditions to Avoid: None, other than direct contact with oxidizing materials.
Hazardous Decomposition Products: Thermal oxidative decomposition of SC-1000 Scale Control & Metal Chelant can produce CO, CO_2 and NO_x.

Section 11- Toxicological Information

Toxicity Data:

Eye Effects: As received, possible mild irritation of eye membranes.
Skin Effects: Drying of exposed skin surfaces, reversible with soap and water washing.
Ingestion Effects: Possible mild gastrointestinal irritation.

Acute Inhalation Effects:
Human, inhalation, TC_{LO}: Not established.
Acute Oral Toxicity:
Rat, oral, LD_{50}: > 2,000 mg/kg.
Acute Dermal Toxicity:
Rat, dermal, LD_{50}: >2,000 mg/kg
Eye Irritation:
Rabbit, None.
Carcinogenicity: None known.
Mutagenicity: None known.

Section 12 - Ecological Information

Acute/Prolonged Toxicity:
Fish: LC0: > 82.6 mg/l (Zebra fish (Brachydanio rerio), 96 hrs.)
Aquatic Invertebrates: EC0: >84 mg/l (Water flea (Daphnia magna), 48 hrs.)
Microorganisms: EC50: > 10,000 mg/l (Activated sludge microorganisms)
Environmental Fate
Biodegradation: Zahn-Wellens Test, 89-99%; Anaerobic, 39%, Exposure time: 56 days.
Biological Oxygen Demand (BOD_7): 278 mg/g.
Chemical Oxygen Demand (COD): 510 mg/g.

Section 13 - Disposal Considerations

Disposal: Contact Orenda Technologies, Inc., your local supplier or a licensed contractor for detailed recommendations. Recovered spilled product may be disposed of by either landfill or incineration. Follow applicable Federal, state, and local regulations.
Disposal Regulatory Requirements: None.
Container Cleaning and Disposal: Thoroughly clean empty containers with water and recycle. Do not use empty containers for food storage.

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name: Chemicals NOI
Shipping Symbols: None.
Hazard Class: Nonhazardous.
ID No.: None.
Packing Group: N/A
Label: None.
Special Provisions (172.102): None.

Packaging Authorizations
a) Exceptions: N/A
b) Non-bulk Packaging: N/A
c) Bulk Packaging: N/A

Quantity Limitations
a) Passenger, Aircraft, or Railcar: None.
b) Cargo Aircraft Only: None.

Vessel Stowage Requirements
a) Vessel Stowage: None.
b) Other: N/A

Section 15 - Regulatory Information

EPA Regulations:
RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)
RCRA Hazardous Waste Classification (40 CFR 261): Not classified
CERCLA Hazardous Substance (40 CFR 302.4) unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec. 307(a), CAA, Sec. 112
CERCLA Reportable Quantity (RQ): None.
SARA 311/312 Codes: None.
SARA Toxic Chemical (40 CFR 372.65): Not listed
SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed, Threshold Planning Quantity (TPQ)
OSHA Regulations:
Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed
OSHA Specifically Regulated Substance (29CFR 1910): Not listed.
State Regulations: None.

Section 16 - Other Information

Prepared By: R. J. Kersey
Revision Notes: July 2006.

Additional Hazard Rating Systems: None.

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