



SRO

Strategic Resource Optimization, Inc.

Safety Data Sheet

Section 1. Product and Company Identification

	Product and Company Identification
Product Name:	Electro-Biocide, Eliminate, and similar formulations
Product Use:	Disinfecting, Cleaning & Deodorizing
Manufacturer	Strategic Resource Optimization, Inc. (SRO)
Address:	289 Elk Creek Drive, Bailey, CO 80421
Emergency Contact:	720-345-9849 or 303-838-0599 or 720-612-8700

Signal Word: Caution

Appearance:	Clear Yellow Liquid
Odor:	Mild Chlorine Odor
Eye:	There are no known eye irritants in this product
Skin:	There are no known skin irritants in this product
Ingestion:	There are no known irritants in this product
Inhalation:	There are no known adverse effects from inhaling this product

EMERGENCY OVERVIEW

Hazards Identification

Section 2. Potential Health Effects/Routes of Exposure

Aggravated Medical Condition	None known to SRO, Inc.
Health Hazards (Acute and Chronic)	Health hazards include symptoms of overexposure to chemicals. Chamber tests showed no exceeding of Permissible Exposure Limits (PEL) or Short Term Exposure Limit (STEL) during product application.

None of the ingredients are listed as carcinogens or potential carcinogens by NTP, IARC, or OSHA.

Carcinogenicity	NTP	IARC Monographs	OSHA Regulated
Does not contain components known to cause cancer according to NTP, IARC, or OSHA	None	None	No

Section 3. Composition/Information on Ingredients

Hazardous Components	OSHA PEL	ACGIH TLV	Other Limits Recommended	Weight %
Before Manufacturing (Electrolysis)				
Sodium Chlorite		<0.06%		
After Manufacturing (Electrolysis)				
Chlorine Dioxide (aqueous solution liquid)	0.1 PPM	0.3 PPM	200 [180-220] PPM aqueous	0.02



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Section 4. First Aid Measures

Eye contact	If adverse effects occur, flush immediately with clean water for at least 10 minutes. If irritation persists, seek medical attention.
Skin contact	If adverse effects occur, immediately flush contaminated areas with fresh water. Remove contaminated clothing. Wash contaminated areas with soap and water. Thoroughly clean and dry contaminated clothing before reuse. If irritation persists, seek medical attention.
Inhalation	If adverse effects occur during use, remove to fresh air. If condition persists, seek immediate medical attention

Section 5. Fire-Fighting Measures

Specific hazards during fire fighting	None – not flammable or explosive.
Suitable extinguishing	Use aqueous foam, water or carbon dioxide (CO ₂) to reduce vapors
Flash point	No flash when heated to 99.0° C ASTM, Method No. E 70
Lower explosion limit	Not Applicable
Upper explosion limit	Not Applicable

Section 6. Accidental Release Measures

Personal precautions	Wear appropriate personal protective equipment
Methods for cleaning up	Isolate area and deny entry to non-essential personnel. Contain the spill. Spill materials may be absorbed using nonflammable commercial absorbents or mop. Avoid mixing spilled material with other chemicals or debris when cleaning up, and dispose of promptly. Releases should be reported, if required, to appropriate agencies. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). Ensure compliance with local, state and federal regulations.

Section 7. Handling and Storage

Requirements for storage	Store in a cool, dry area out of direct sunlight. Keep containers tightly closed and upright when not in use. Do not allow product to freeze. Freeze point is ~32° F / 0° C.
Waste Disposal	Re-process or dispose of in compliance with all local, state and federal regulatory requirements. Empty container may be rinsed and offered for recycling. If recycling is not available, discard container in trash. Discard excess Electro-Biocide in drain with running water only if local regulations allow. Otherwise, dispose of as required by local regulations.



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Section 8. Exposure Control/Personal Protection

Personal Protective Equipment

Respiratory Protection	Out of an abundance of caution from C&IH exposure testing for spray use "Personal and area samples indicated that the time weighted average Permissible Exposure Limit (PEL) and short term exposure limit (STEL) results for the spray application did not exceed applicable OSHA and other occupational exposure limits (OEL). Upper confidence limit (UCL) calculations for the personal and area samples indicated that OSHA compliance could be achieved under the conditions studied without respiratory protection; however, a half-face AP Respirator with face shield, or other appropriate eye and face protection, is recommended.
Ventilation	None Required
Local Exhaust	None Required
Mechanical (General)	None Required
Special	None Required
Other	None Required
Eye Protection	EPA Category IV solution. Chemical safety goggles designed for chemical splash protection with indirect venting are recommended.
Other Protective Clothing or Equipment	EPA Category IV solution. Protective clothing to minimize skin contact for long term exposure is recommended. Thoroughly clean and dry contaminated clothing prior to reuse.
Work/Hygienic Practices	Wash Exposed Skin

Section 9. Physical and Chemical Properties

Aqueous solution – This is <u>not</u> ClO₂ (Chlorine Dioxide) gas	
Boiling Point	~212° F / ~100° C
Specific Gravity (H ₂ O = 1)	~1.01 at 10° C
Vapor Pressure (mm Hg)	N/A
Viscosity	20° C 1.024 mm ² / s 42° C 0.603 mm ² / s
Vapor Density (AIR = 1)	N/A
Evaporation Rate (Butyl Acetate = 1)	<1
Solubility in Water	Completely soluble – 100%, used at 180-220 PPM
Appearance and Odor	Clear yellow liquid; Mild Chlorine Odor
Flash point	No flash when heated to 99.0° C ASTM, Method No. E 70
Upper & Lower explosion limit	N/A



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Section 10. Stability and Reactivity

Stability	No signs of reaction
Materials to Avoid	Strong Acids
Hazardous decomposition products	There are no hazardous byproducts from material degradation.
Hazardous Polymerization	No hazardous polymerization will occur.
Hazardous reactions	This product presents no significant reactivity hazard. It is stable and will not react violently when contacted by water.

Section 11. Toxicology Information

EPA Toxicity Category IV is defined as Relatively Non-Toxic.

Electro-BioCide Toxicity Test Results:

Oral LD50 Test Results:	The Oral dosing was determined to be greater than 5,000 mg/kg body weight. Therefore, Electro-BioCide was classified as Toxicity Category IV.
Skin Sensitization testing:	Tests showed no perceptible reaction to Electro-BioCide. Therefore Electro-BioCide was classified as Toxicity Category IV.
Skin Irritation testing:	There was no skin irritation reactions observed over prolonged periods. Based on the results of the study the test material would be classified as Category IV for dermal effects.

Section 12. Ecological Information

There are no known ecological effects from Electro-Biocide.

Section 13. Disposal Considerations

Wastes resulting from the use of this product may be disposed of on-site or at an approved waste facility. Call your local solid waste disposal agency or 1-800-CLEANUP for disposal instructions.

Section 14. Transportation Information

Electro-Biocide does not require special labeling during transportation. The Category IV rating is described in Section 11 above.

Section 15. Regulatory Information

Electro-Biocide is registered with the EPA. Registration Number 87492-1 and is rated as Category IV, "Practically Non-Toxic."

Section 16. Other Information

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