



Safety Data Sheet

Section 01 - Identification

Product Identifier	Algysolve 2250
Other Means of Identification	None
Product Use and Restrictions on Use	Algaecide for swimming pools
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
Prepared By	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
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Section 02 - Hazard Identification

GHS-Classification

Acute Toxicity-Oral	Category 4
Skin Corrosion/Irritation	Category 2
Eye Damage/Irritation	Category 2

Physical Hazards

No known physical hazards.

Warning

Hazard Statements

H302 – Harmful if swallowed.
H315 – Causes skin irritation.
H319 – Causes serious eye irritation.

Pictograms



Precautionary Statements

P405 – Store locked up.
P403 + P233 – Store in a well-ventilated place. Keep container tightly closed.
P264 – Wash hands thoroughly after handling.
P270 – Do not eat, drink or smoke when using this product.
P311 – Call a POISON CENTER or doctor/physician.

P301 + P312 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 – Rinse mouth.

P280 – Wear protective gloves, protective clothing, eye protection, and face protection.

P302 + P352 – IF ON SKIN: Wash with plenty of soap and water.

P332 + P313 – If skin irritation occurs: Get medical advice/attention.

P362 + P364 – Take off contaminated clothing and wash before reuse.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 – If eye irritation persists: Get medical advice/attention.

P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Poly [oxyethylene (dimethyliminio) ethylene (dimethyliminio) ethylene dichloride]	31075-24-8	20-30%	L5T 2N1
Copper Sulphate	7758-98-7	5-15%	
Water	7732-18-5	55-75%	

Section 04 - First Aid Measures

Inhalation	If symptoms are experienced, remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention if difficulties persist.
Skin Contact / Absorption	Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.
Eye Contact	Contact lenses should never be worn when working with this product. Flush immediately with water for at least 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. If irritation persists, seek medical attention.
Ingestion	If swallowed, promptly drink a large quantity of milk, egg whites, gelatin solution, or large quantities of water. Immediately call POISON CENTER or a physician.
Additional Information	Not Available

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Dry chemical, foam, carbon dioxide or water can be used for surrounding fire.
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	Oxides of carbon
Special Protective Equipment and Precautions for Fire-Fighters	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
Further Information	Not Available

Section 06 - Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Flush with water to remove any residue.
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Environmental Precautions Prevent material from entering sewers.

Methods and Materials for Containment and Cleaning Up In case of spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer.

Section 07 - Handling and Storage

Precautions for Safe Handling Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.

Conditions for Safe Storage Store in closed containers in cool, dry, well-ventilated area. Store away from oxidizers.

Incompatibilities Oxidizers

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Copper	OSHA	PEL-T-TWA	1mg/m ³
	ACGIH	TLV-TWA	1mg/m ³

Engineering Control(s)

Ventilation Requirements Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.

Other Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

Protective Equipment

Eyes/Face Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.

Hand Protection Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

Skin and Body Protection Body suite, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

Impervious boots of chemically resistant material should be worn at all times. No special footwear is required other than what is mandated at place of work.

Respiratory Protection Use an approved respirator with appropriate dust/mist cartridges.

Thermal Hazards Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State Liquid

Colour Blue

Odour	Mild sweet odor
Odour Threshold	Not Available
<u>Property</u>	
pH	6.6-7.6 (10% solution)
Melting Point/Freezing Point	<0°C
Initial Boiling Point and Boiling Range	>100°C
Flash Point	>100°C
Evaporation Rate	Not Available
Flammability	Normally non-flammable, however product at high temperatures may become combustible.
Upper Flammable Limit	Not Applicable
Lower Flammable Limit	Not Applicable
Vapour Pressure (mm Hg, 20°C)	Not Available
Vapour Density (Air=1)	1.13-1.16
Relative Density	Not Available
Solubility(ies)	Moderately soluble in water
Partition Coefficient: n-octanol/water	Not Available
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	Not Available
Viscosity	Not Available
Explosive Properties	Not Available
Specific Gravity (Water=1)	1.095-1.105
% Volatiles by Volume	30-50%
Formula	Not Available
Molecular Weight	Not Available

Section 10 - Stability and Reactivity

Reactivity	Not Available
Stability	Stable under normal conditions.
Possibility of Hazardous Reactions	Not Available

Conditions to Avoid	Not Available
Incompatible Materials	Oxidizers
Hazardous Decomposition Products	Oxides of carbon

Section 11 - Toxicological Information

Acute Toxicity Estimate

Component	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Algysolve 2250	317 mg/kg	3300 mg/kg	8.21 mg/L

This product has been classified in accordance with the Hazardous Products Regulations using ATE formula documented in the GHS standard.

Chronic Toxicity – Carcinogenicity

Component	IARC
Algysolve 2250	None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

Skin Corrosion/Irritation	Repeated or prolonged skin contact may cause irritation and superficial burns.
Ingestion	May be harmful if swallowed.
Inhalation	May cause irritation of respiratory tract.
Serious Eye Damage/Irritation	Expected to be an irritant
Respiratory or Skin Sensitization	Repeated contact with copper sulphate may cause sensitization in some individuals.
Germ Cell Mutagenicity	Laboratory experiments with copper sulphate have resulted in mutagenic effects.
Reproductive Toxicity	The milk of female vineyard workers, who were exposed to copper sulfate and a variety of other pesticides, contained 6.2 times as much copper as the milk of milkmaids who did equally hard work but not exposed to pesticides.
STOT-Single Exposure	May cause irritation of respiratory tract.
STOT-Repeated Exposure	Severe exposure or chronic exposure by ingestion or inhalation of copper sulphate may induce severe gastroenteric distress (vomiting, gastroenteric pain, local corrosion, and hemorrhages), a metallic taste in the mouth, prostration, anuria, hematuria, anemia, an increase in white blood cells, coma, respiration difficulties, and circulatory problems. May cause liver and kidney damage.
Aspiration Hazard	Chronic inhalation of copper sulphate may result in anemia.
Synergistic Materials	Not Available

Section 12 – Ecological Information

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Poly [oxyethylene (dimethyliminio) ethylene (dimethyliminio) ethylene dichloride]	Not Available	LC ₅₀ (Oncorhynchus mykiss, 96hr): 0.047mg/L	LC ₅₀ (Invertebrate, 96hr): 0.37mg/L
Copper Sulfate	EC ₅₀ (Thalassiosira pseudonana, 72hr): 0.005mg/L	LC ₅₀ (Pimephales promelas, 96hr): 0.0028mg/L	EC ₅₀ (Daphnia magna, 48hr): 0.0469mg/L

Biodegradability	Not Available
Bioaccumulation	Bioaccumulation of copper sulphate may occur along the food chain, for example in fish.
Mobility	Copper sulphate can potentially percolate into soil. Will dissolve in wet conditions leaving trace amount of elemental copper ions in surrounding soil.
Other Adverse Effects	Not Available

Section 13 – Disposal Considerations

Waste From Residues/Unused Products	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 – Transport Information

UN Number	Not Available
UN Proper Shipping Name	Not Available
Transport Hazard Class(es)	Not Available
Packaging Group	Not Available
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special Precautions	Not Available
Transport in Bulk	Not Available
TDG	
Other	Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

Section 15 – Regulatory Information

NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

Section 16 – Other Information

Preparation Date August 17, 2015

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution[®] initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

References:

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB
- 6) ECHA

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