

Health	3
Flammability	1
Reactivity	0

Section 1	Identification
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Product Name:	GCS-3216	Company:	Guardian CSC
Product Description:	Water treatment antimicrobial solution		6000 Susquehanna Plaza Drive
Transport Emergency:	Chemtrec		York, PA 17406
	800-424-9300		800-297-8266
			717-848-2570 Fax

Section 2	Hazard Identification
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Hazard Classification:	Skin Corrosion Category 1, Sub-Category B Serious Eye Damage Category 1
Signal Word:	Danger
Hazard Statements:	Causes severe skin burns and eye damage. Causes serious eye damage. May cause sensitization by skin contact. Irritating to respiratory system.



Precautionary statements

Prevention:	Wash affected body parts thoroughly after handling. Keep out of reach of children. Read label before use. Wear protective gloves. Wear chemical protective clothing. Wear safety goggles Wear face shield. Do not breathe mist/spray. In case of inadequate ventilation, wear respiratory protection.
Response:	If swallowed: Do not induce vomiting. Rinse mouth with water. Give water to drink, if conscious. Immediately call a POISON CENTER or a physician. If on skin (or hair): Wash with plenty of water. For specific treatment (see Section 4). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a doctor
Storage:	Store locked up. See Section 7
Disposal:	Dispose of contents/container in accordance with federal, state, and local regulations.

Section 3**Composition/Information on Ingredients**

<u>Chemical</u>	<u>CAS Number</u>	<u>Concentration (wt%)*</u>
Water	7732-18-5	89.0 – 90.0%
Bronopol	52-51-7	7.0 – 9.0%
Sodium Nitrate	7631-99-4	1.0 – 2.0%
5-Chloro-2-methyl-4-isothiazolin-3-one	26172-55-4	0.75 – 0.85%
Methyl-4-isothiazolin-3-one	2682-20-4	0.23 – 0.31%

Section 4**First-Aid Measures**

Eyes:	Immediately flush eyes with water for at least 15 minutes. Get medical attention immediately.
Skin:	Immediately flush skin with a large amount of soap and water. Immediate medical attention is required. Wash contaminated clothing before reuse. Do not take clothing home to be laundered. Discard contaminated shoes, belts and other articles made of leather.
Ingestion:	If conscious, immediately rinse mouth with water and give 1 glass of water to drink. Do not induce vomiting unless directed by medical personnel. Get medical attention immediately.
Inhalation:	Promptly remove to fresh air. If signs of suffocation, irritation or other symptoms develop, Get medical attention immediately.
Notes to Physician:	This material is CORROSIVE. It may not be advisable to induce vomiting. Possible mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock and convulsions may be necessary.

Section 5**Fire-Fighting Measures**

As in any fire, wear a self-contained breathing apparatus in pressure-demand MSH/NIOSH (approved or equivalent), and full protective gear. Move container from fire area if possible. Do not scatter spilled material with more water than needed for fire control and dike fire control water for later disposal. Use agents suitable for type of surrounding fire. Avoid breathing hazardous vapors and keep upwind.

Extinguishing Media:	Dry chemical, carbon dioxide, water spray, or foam. For larger fires use water spray, fog, or alcohol foam.
Unusual Fire and Explosion Hazard:	None anticipated
Hazardous combustion products:	Combustion generates toxic fumes of the following: hydrogen chloride, nitrogen oxides (NOx), and sulfur oxides.

Section 6**Accidental Release Measures**

Personal Precautions: Wear a NIOSH approved (or equivalent) respirator (with organic vapor/acid gas cartridge and a dust/mist filter) during spill clean-ups and deactivation of this material. Material is CORROSIVE. Protective clothing, including chemical splash goggles, nitrile or butyl rubber full length gloves, rubber apron, or clothing made of nitrile or butyl rubber, and rubber overshoes must be worn during spill clean-ups and deactivation of this material. If material comes in contact with the skin during clean-up operations, immediately remove all contaminated clothing and wash exposed skin areas with soap and water. See section 4, First aid measures for further information.

Spill Response: Do not allow material to contaminate ground water system. Prevent product from entering drains.

Methods for cleaning up: Warning: Keep spills and clean-up residuals out of municipal sewers and open bodies of water. Adsorb the spill with spill pillows or inert solids such as clay or vermiculite and transfer contaminated materials to suitable containers for disposal. Deactivate spill area with freshly prepared solution of 5% sodium bicarbonate and % sodium hypochlorite in water. Apply solution to the spill area at a ratio of 10 volumes deactivation solution per estimated volume of residual spill to deactivate any residual active ingredient. Let stand of 30 minutes. Flush the spill area with copious amount of water to chemical sewer (if in accordance with local procedures, permits and regulations). DO NOT add deactivation solution to the waste pail to deactivate the adsorbed material. See Section 13, "Disposal Considerations" for information regarding the disposal of contained materials.

Spill Notification: Determine if federal, state, and/or local release notification is required.

Section 7**Handling and Storage**

Handling:	Wash thoroughly after handling. Remove contaminated clothing and wash before re-use. Avoid contact with eyes, skin and clothing. Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Avoid contact with heat, sparks, and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks, or open flames.
Storage:	Keep away from heat, sparks, and flames. Store in a cool, dry, well-ventilated area. Do not freeze. Store away from acids and oxidizing agents. Keep container closed when not in use.

Section 8**Exposure Controls/Personal Protection**

<u>Hazardous Components</u>	<u>CAS</u>	<u>Manufacturer TWA</u>	<u>Manufacturer STEL</u>
5-Chloro-2-methyl-4-isothiazolin-3-one	26172-55-4	0.076 mg/m3	0.23 mg/m3
Methyl-4-isothiazolin-3-one	2682-20-4	1.5 mg/m3	4.5 mg/m3

Exposure Controls: Provide local exhaust or general dilution ventilation system. Wear recommended PPE to avoid contact with body parts.

PPE:



Eye Protection:	Wear chemical safety goggles and face shield. Have eye wash stations available where eye contact can occur.
Hand Protection:	Wear gloves impervious to conditions of use including neoprene, nitrile, PVC, natural rubber, Viton and butyl.
Body Protection:	Wear appropriate impervious clothing. Have safety showers available where skin contact can occur.
Respiratory Protection:	If it is possible to generate vapors or mists, a NIOSH approved or equivalent respirator is recommended. For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilations, a positive pressure, and self-contained breathing apparatus is recommended.

Section 9**Physical and Chemical Properties**

Appearance:	Clear, light yellow liquid	Melting point/freezing point:	28°F
Odor:	Slight	Initial boiling point and boiling range:	Not available
Odor threshold:	Not available	Evaporation rate:	Not available
pH:	4 – 4.5	Vapor pressure:	Not available
Relative density:	1.05 at 68°F	Vapor density:	Not available
Solubility:	Complete	Partition coefficient:	Not available
Flammability:	Not flammable	Auto-ignition temperature:	Not available
Flash point:	>212°F	Decomposition temperature:	Not available
Upper/lower flammability or explosive limits:	No data available	Viscosity:	Not available

Section 10**Stability and Reactivity**

Stability:	This material is stable under normal temperatures and pressures.
Possibility of hazardous reactions:	Hazardous polymerization will not occur.
Incompatible Materials:	Oxidizing agents, amines, reducing agents and mercaptans.
Hazardous Decomposition Products:	In the event of combustion, nitrogen oxides, sulfur oxides and hydrogen chloride may form. Do not breathe smoke or fumes. Wear suitable protective equipment.

Section 11**Toxicological Information**

Symptoms of Overexposure:	Acute burns of the skin or eyes and irritation of the same.
Health Hazards:	
Eye:	Acute burns or irritation
Skin:	Irritation of various degrees
Inhalation:	May cause irritation to the respiratory tract and/or lungs.
Ingestion:	Severe intestinal tract irritant. Do not induce vomiting.
Delayed Effects:	None known
Chronic Effects:	None known
Carcinogen:	Component: Sodium Nitrate; List: IARC; Classification: Probable Human Carcinogen
Chemical	<u>Acute Toxicity Data</u>
GCS-3216	LD ₅₀ (oral, rat) = 2,000 mg/kg; LC ₅₀ (inhalation, rat) = 1.69 mg/L/4 hr; LC ₅₀ (dermal, rat) >5,000 mg/kg
Skin Irritation:	Rabbit, 4 hour: Corrosive
Eye Irritation:	Rabbit: Corrosive
Sensitization:	Guinea Pig: Causes Sensitization
Teratogenicity:	Component: Bronopol: Has been toxic to the fetus in laboratory animals at doses toxic to the mother.
Mutagenicity:	Component: Bronopol: In vitro studies showed both positive and negative effects. In vivo tests did not show mutagenic effects.

Section 12**Ecological Information**

Components/CAS-No.	Acute Algae Toxicity:	Acute Fish Toxicity:	Toxicity to daphnia and other aquatic invertebrates:
GCS-3216 (Whole Product)	No information available.	No information available.	EC ₅₀ = 1.4 mg/L (48 hr, Daphnia magna)

Mobility:	No information available.
Persistence:	No information available.
Bioaccumulative Potential:	No information available.
Chemical Fate Information:	No information available.
Other Information:	No other ecological studies have been carried out on this product.

Section 13**Disposal Considerations**

Dispose of in a manner consistent with federal, state, and local regulations.

Waste Classification: When a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity and is not listed in 40 CFR 261.33. The toxicity characteristic (TC), however, has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).

Incinerated liquid and contaminated solids in accordance with local, state and federal regulations. (See 40 CFR 268)

Section 14**Transport Information**

DOT Shipping Name:	UN 3265, Corrosive liquid, acidic, organic, N.O.S. (5-chloro-2-methyl-4-isothiazolin-3-one)
DOT Hazard Class:	8 – Corrosive
UN Number:	UN3265
Packing Group:	PGII, ER-153

Section 15**Regulatory Information**

Toxic Substances Control Act (TSCA):	This product is subject to regulation under the US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and is therefore exempt from U.S. Toxic Substances Control Act (TSCA) Inventory listing requirements.
SARA Section 302 Extremely Hazardous Substances:	No components listed.
SARA Section 311 Hazard Class:	Acute Health Hazard
SARA Section 313 Toxic Chemicals:	Listed component: Sodium Nitrate; CAS: 7631-99-4
FD&C Act:	This product is not approved for use in FDA applications
RCRA:	This product is not defined under the Resource and Recovery Act (RCRA)
Clean Water Act:	Not applicable
California Proposition 65:	No components listed.
WHMIS:	This product is a "controlled product" under the Canadian Workplace Hazardous Materials Information System (WHMIS)
Michigan Critical Materials:	No components listed.
State Right to Know Laws:	Not applicable

Section 16**Other Information**

This Material Safety Data Sheet is offered solely for the customer's information, consideration, and investigation. Guardian CSC provides no express or implied warranties with respect to the information contained herein.

This material will not be sold for use in products for which prolonged contact with mucous membranes or abraded skin or implantation within the body is specifically intended. Because of the wide range of such potential uses, Guardian CSC is not able to recommend this material as safe and effective for such uses and assumes no liability for any such uses.

Although all data included in this MSDS is believed to be accurate, Guardian CSC makes no representations as to its accuracy, sufficiency, or completeness. Conditions of use are beyond Guardian CSC's control and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes. User assumes all risks of use, handling, and disposal of the product or from the use of, or reliance upon, information contained herein.

Revised By:	Matt Weir
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