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**Material Safety Data Sheet
GCS-3907**

2	Health
0	Flammability
2	Reactivity
D	Protective Equipment

Identity: GCS-3900

Section I - Manufacturer's Information

GUARDIAN CSC
6000 Susquehanna Plaza Dr.
YORK, PA 17406
(717) 848-2540
www.guardiancsc.com

Emergency Phone: CHEMTREC
Information: 1-800-424-9300
Updated: 1/1/14
DOT ID: UN1760, PG-III
Chemical Family: Biocide
Hazard Class: Corrosive

Section II - Hazardous Ingredients/Identity Information

<u>Hazardous Components</u>	<u>CAS</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>%</u>
Sodium Hydroxide	1310-73-2	2 mg/m ³ (ceiling)	2 mg/m ³ (ceiling)	Some
Sulfamic acid, N-Bromo, sodium salt	1004542-84-0	N/A	N/A	Substantial
Sodium Chloride	7647-14-5	N/A	N/A	Minor
Water	7732-18-5	N/A	N/A	Major

(Oxidizing Cleaning Solution EPA#63838-3-39637)

Section III - Physical/Chemical Characteristics

Boiling Point:	214-216° F	Specific Gravity (H ₂ O=1):	1.24-1.26
Vapor Pressure:	19.0 mm Hg	Freeze Point:	<30°F
Density:	10.3-10.5 lbs/gal	Evaporation Rate (H ₂ O=1):	N/A
Solubility In Water:	100%	pH:	>13
Appearance And Odor:	Yellow Liquid/ Mild Odor		

Section IV - Fire and Explosion Hazard Data

Flash Point: N/A Flammable Limits LEL: N/A UEL: N/A
 Method Used: N/A

Extinguishing Media:

CO2, Water, Foam, Dry chemical

Special Fire Fighting Procedures:

Protect fire fighters from physical contact with product. Wear suitable protective suits. The product is a strong oxidizer and may combine with various metals (at decomposition) to form further flammable mixtures.

Unusual Fire and Explosion Hazards:

See Above (None Anticipated)

Section V - Reactivity Data

Stability:	Stable
Conditions to Avoid:	Poor Ventilation
Incompatibility (Materials to Avoid):	Avoid contact with easily oxidizable material and strong acids.
Hazardous Decomposition or Byproducts:	Vapor/fumes of organic materials plus of carbon may be emitted
Hazardous Polymerization:	May not occur
Personnel Conditions to Avoid:	Extended contact with skin or ingestion

Section VI - Health Hazard Data

Route(s) of Entry:

Inhalation: N/A Skin: Moderate Ingestion: Severe

Health Hazards (Acute and Chronic):

Acute and chronic health hazards are difficult to accurately assess for mixtures. In general see the first aid section for acute effects and long term effects would have to be derived from these immediate results. Specific chronic effects can be studied from the individual hazardous chemicals as indicated under Section II as the best guess without extensive laboratory studies.

Carcinogenicity:

NTP: None Known IARC Monographs: None Known OSHA: None

Signs and Symptoms of Exposure:

Irritating to the eyes produces reversible effects in the form of erythema, chemosis and discharge. If ingested do not induce vomiting.

Medical Conditions Generally Aggravated By Exposure:

A knowledge of available toxicology information and of the physical properties of the material suggests that exposure is unlikely to aggravate existing medical conditions. However, due to the widely varying uses and personal exposures possible, an individual will have to evaluate his/her particular situation. This is an alkali irritant, and has been seen to effect the nervous system, liver, and kidney as a toxin when over exposed to material to a limited and varying degree.

Emergency and First Aid Procedures:

EYES: Flush eyes with water for at least 15 minutes. Seek medical attention immediately.

SKIN: Wash thoroughly with soap and water, apply lotion if irritation continues.

INHALATION: Remove to fresh air; give oxygen if needed, or artificial respiration to maintain breathing. Get a doctor if indicated.

INGESTION: Careful gastric lavage is required. Wash mouth and other contacted parts with water. Never give any substance to an unconscious person. If conscious **DO NOT** induce vomiting. **CALL A DOCTOR.**

DO NOT INDUCE VOMITING IF:

Victim is in convulsions. Victim has symptoms of severe pain, burning sensation in the mouth or throat, or is already vomiting. Victim has ingested alkali, acid or petroleum distillate.

Section VII - Precautions for Safe Handling and Use

Steps To Be Taken In Case Material Is Released Or Spilled:

Dike spills for recovery with absorbent materials. Do not flush product to storm sewer. Large spills can be sucked up with a vacuum truck for further treatment. Shovel all spilled and neutralized material in place into suitable container for disposal in accordance with Federal, State, and Local laws. This product is toxic to fish, avoid discharge to natural waters. See Section XIII for more regulatory information.

Waste Disposal Method:

Since Federal, State, and Local laws vary greatly from situation to situation, and since these materials are mixtures, no one preferred waste disposal method can be given. However, keep in mind that all of these type products are ultimately destined to go "down the drain" since they are cleaning compounds of one sort or another. Generally in highly diluted or completely neutralized state they present no particular environmental hazard, they can be treated as ordinary waste, which is piped to a sanitary sewer for proper waste treatment.

The effluent from this product should not be discharged into any river, lake, stream, creek, or water shed that might contaminate drinking water unless the discharge has been specifically permitted by the proper authority as the DER, DEP, etc. Product is non-hazardous. It can be disposed of in any approved land fill in accordance with Federal, State and Local regulations.

Precautions to Be Taken in Handling and Storage:

Do not freeze product. Do not subject product to excessive heat. KEEP OUT OF REACH OF CHILDREN. Do not contaminate with food stuffs. Do not mix with other chemicals except under direct supervision of a chemist or technically trained individual. Mix only with water. During storage and transportation of the product, keep product dry at all times, and do not exceed container integrity (improperly double or triple decking of palletized goods). If sensitivity or aggravations of allergy, or unanticipated personal health problems become evident, stop use and see your supervisor. Keep in mind that often the use solution and the concentrate will have different safety precautions.

Other Precautions:

Wear safety glasses or goggles. Use PVC or rubber coated gloves. If required to meet TLV requirements, wear self-contained breathing apparatus. Use chemical apron. Have present eye wash and safety shower. Store in a cool dry area. Avoid temperature extremes.

Launder all clothing before reuse. Discard all contaminated gloves, boots, and other clothing that cannot be properly cleaned.

Section VIII - Control Measures

Respiratory Protection (Specific Type):

Usually not needed.

Ventilation:

Local Exhaust:	NA	Recommended:	NA	Special:	NA
Mechanical (General):	Usually sufficient			Other:	NA

Protective Gloves:

PVC-coated, rubber or similar type is recommended for repeated contact with use solution, or direct contact with concentrate.

Eye Protection:

A face shield and safety goggles are always recommended, as are safety showers and eye wash fountains in all processing areas.

Other Protective Clothing or Equipment:

Wear chemical protective clothing, long sleeve shirts and pants. Launder dirty uniforms regularly. Wash daily to maintain good cleanliness when in contact with various cleaning or water treating chemicals.

Work/Hygienic Practices:

Non-slip work shoes with an apron are good practices to follow.

--- START CLEAN --- STAY CLEAN --- END CLEAN = WORK SAFELY

Section IX - Documentary Information

Comments:

Section II Hazardous Material Section Percentage Key. If no hazardous chemicals are present then this section is not applicable.

Nil	-> 0.0% to 0.1%
Trace	-> 0.1% to 1.0%
Some	-> 1.0% to 5.0%
Minor Comp.	-> 5.0% to 25.0%
Substantial	->25.0% to 50.0%
Major Comp.	->50.0% to 100.0%

Substances listed in Section II are those identified as being at a concentration of 1% or greater or 0.1% if the substance is on the list of potential carcinogens cited in OSHA Hazard Communication Std.

If Section II does not contain any hazardous chemicals as presently defined in our applicable tables the message **NO HAZARDOUS CHEMICALS** will appear in this section above.

Section X - Toxicological Information

Toxicity Studies: Toxicity studies have been completed on this product. The results are show below:

Acute Oral Toxicity (Albino Rats):	>5000 mg/kg
Acute Dermal Toxicity (Albino Rats):	>2000 mg/kg
Acute Inhalation Toxicity (Rats) (LC ₅₀):	>2.06 mg/L
Primary Skin Irritation Test (Albino Rabbits):	No Data (Corrosive Product)
Primary Eye Irritation Test (Albino Rabbits):	No Data (Corrosive Product)

Section XI - Ecological Information

Results below are based on the active product (reported at Cl₂)

Avian Exposure:

Upland Game Birds:	
Acute Oral LD ₅₀	>2510 mg/kg
Subacute Dietary LC ₅₀	>5000 mg/kg

Aquatic Data:

Cold Water Fish, acute toxicity, LC ₅₀	1.35 ppm (max) (96 hr)
Warm Water Fish, acute toxicity, LC ₅₀	2.1 ppm (max) (96 hr)
Invertebrate (D. magna), acute toxicity, LC ₅₀	2.3 ppm (max) (96 hr)

Section XII - Transportation Information

Proper shipping name/hazard class may vary by packaging, properties and mode of transportation. Typical proper shipping names for this product are:

Road Transportation Modes:	Corrosive liquid, n.o.s. (bromide salts) UN1760
Air Transportation:	Corrosive liquid, n.o.s. (bromide salts) UN1760
Marine Transportation:	Corrosive liquid, n.o.s. (bromide salts) UN1760
Hazard Class, Primary:	8 – Corrosive
Packaging Group:	III
IMDG Page No:	ND
IATA Packing Instruction:	808
IATA Cargo Aircraft Limit:	1.0 L
Flash Point:	None
Technical Name:	N/A
RQ lbs (per package):	N/A
RQ Components:	N/A

Section XIII - Regulatory Information

The following regulations apply to this product.

Federal Regulations:

OSHA's Hazard Communication Rule, 29 CFR 1910.1200: Based on our evaluation there are no applicable hazardous components.

CERCLA/SUPERFUND, 40 CFR 117.301: N/A

SARA/SUPERFUND AMENDMENTS ACT OF 1986 (TITLE III) – SECTIONS 302, 311 and 313:

Section 302 – Extremely hazardous substances (40 CFR 355): This product does not contain ingredients listed in Appendix A and B as an extremely hazardous substance.

Sections 311 and 312 – Material Safety Data Sheet Requirements (40 CFR 370): Our hazard evaluation has found this product to be mildly hazardous due to skin and eye corrosivity. The product should be reported under the following EPA hazard categories:

Yes	Immediate (acute) health hazard (due to pH)
No	Delayed (chronic) health hazard
No	Fire Hazard

Section 313 – List of Toxic Chemicals (40 CFR 372): This product does not contain ingredients on the list of Toxic Chemicals.

Toxic Substance Control Act (TSCA): The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).

Food and Drug Administration: Federal Food, Drug and Cosmetic Act: N/A

Resource Conservation and Recovery Act (RCRA), 40 CFR 261 Subpart C and D: This product is not considered hazardous waste.

Federal Water Pollution Control Act, Clean Water Act, 40 CFR 401.15: N/A

State Regulations:

California Proposition 65: None of the chemicals on the current Proposition 65 list are known to be present in this product.

Michigan Critical Materials: This product does not contain substance(s) identified on this list.

State Right to Know Laws: N/A

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