



Safety Data Sheet

GCS-6310

Revised: 01/31/23

Health	1
Flammability	0
Reactivity	0

Section 1**Identification**

Product Name:	GCS-6310	Company:	Guardian CSC
Product Description:	Water Treatment; Scale and Corrosion Inhibition		6000 Susquehanna Plaza Drive
Transport Emergency:	Chemtrec		York, PA 17406
	800-424-9300		800-297-8266
			717-848-2570 Fax

Section 2**Hazard Identification**

Hazard Classification:	Skin Corrosion Category 2 Serious Eye Irritation Category 2 Acute Toxicity (Oral) Category 5
Signal Word:	Warning
Hazard Statements:	Causes skin irritation. Causes serious eye irritation. May be harmful if swallowed.



Precautionary statements

Prevention:

Read SDS/label before use.
Wash affected body parts thoroughly after handling.
Keep out of reach of children.
Wear protective gloves.
Wear chemical protective clothing.
Wear safety goggles.
Do not breathe mist/spray.
In case of inadequate ventilation, wear respiratory protection.
Do not eat, drink or smoke when using this product.

Response:

For specific treatment (see Section 4).
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. Take off contaminated clothing and wash it before reuse.
If skin irritation occurs: Get medical advice/attention.
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: Get medical advice/attention.

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>
Potassium Hydroxide	1310-58-3	5 – 15%
Acrylic Acid/2-Acrylamido-2-methylpropanesulfonic Acid /Sulfonic Acid Terpolymer	40623-75-4	5 – 10%
Homopolymer Maleic Acid	26099-09-2	1 – 5%
2-Phosphonobutane-1,2,4-tricarboxylic Acid	37971-36-1	1 – 5%
(1-Hydroxyethylidene)-1,1-diphosphonic Acid	2809-21-4	1 – 5%
Poly(acrylic) Acid	9003-01-4	1 – 5%
Sodium Tolytriazole	64665-57-2	1 – 5%
1,3,6,8-Pyrenetetrasulfonic Acid, Tetrasodium Salt Hydrate	59572-10-0	0.1 – 0.5%
Phosphorous Acid	10294-56-1	0.01 – 0.1%
Phosphoric Acid	7664-38-2	0.01 – 0.1%
Water	7732-18-5	39.3 – 70.88%

Section 4 First-Aid Measures	
Eyes:	Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, get medical attention.
Skin:	Immediately flush skin with a large amount of soap and water. Remove contaminated clothing and shoes. If irritation persists, get medical attention. Wash contaminated clothing before reuse. Do not take clothes home to be laundered. Discard contaminated shoes, belts and other clothing made of leather.
Ingestion:	Do NOT feed anything by mouth to an unconscious or convulsive victim. Rinse mouth. Dilute contents of stomach with a glass or two of water to help neutralize the alkali. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Immediately contact a physician or Poison Control Center.
Inhalation:	Promptly remove to fresh air and keep at rest in a position comfortable for breathing. If signs of suffocation, irritation or other symptoms develop, Get medical attention immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Notes to Physician:	Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition. Note: Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

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.
Special Procedures:	Use self-contained breathing apparatus in confined areas; avoid breathing mist or spray. Full protective clothing and approved self-contained breathing apparatus required for firefighting personnel.
Unusual Fire and Explosion Hazard:	None anticipated
Hazardous Combustion Products:	Combustion generates toxic fumes of carbon monoxide, carbon dioxide, and other miscellaneous unknown compounds.

Section 6 Accidental Release Measures	
Spill Response:	Stop leaks. Clean up spill immediately. Build dikes as necessary to contain flow of large spills. Do not allow liquid to enter stream or waterways. For small spills, use an inert material to absorb. Place contaminated materials into containers and store in a safe place to await proper disposal. Wear adequate personal protective clothing and equipment. Provide adequate ventilation to spill area. Approved breathing apparatus may be necessary.
Spill Notification:	Determine if federal, state, and/or local release notification is required.

Section 7**Handling and Storage****Handling:**

Keep container closed. Both open and handle containers with care. Store in a cool, well ventilated place away from incompatible materials. Do NOT pressurize, cut, heat, or weld containers. Empty product containers may contain product residue. Do NOT reuse empty containers without commercial cleaning or reconditioning. Avoid contact with eyes, skin and clothing. Avoid breathing mist or vapors. Wash thoroughly after handling. Keep container closed when not in use.

Storage:

Keep container tightly closed when not in use. Store in a cool, dry, well-ventilated area. Store away from strong acids and oxidizing agents. Do not freeze. Keep away from heat, sparks, and open flame. This product has a shelf life of at least six months in unopened containers and when stored within the recommended temperature range.

Section 8**Exposure Controls/Personal Protection**

<u>Hazardous Components</u>	<u>CAS Number</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Potassium Hydroxide	1310-58-3	2 mg/m ³ (8-hr TWA)	2 mg/m ³ (8-hr TWA)
Phosphoric Acid	7664-38-2	1 mg/m ³ (8-hr TWA) 3 mg/m ³ (15-min STEL)	1 mg/m ³ (8-hr TWA) 3 mg/m ³ (15-min STEL)

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 exposure limits are exceeded, irritation or other symptoms are experienced, and/or 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:	Brown Liquid	Melting Point/Freezing Point:	Not available
Odor:	Slight Solvent	Initial Boiling Point and Boiling Range:	>212°F
Odor Threshold:	Not available	Evaporation Rate:	<1.00 (H ₂ O=1.00)
pH:	11 – 12.4	Vapor Pressure:	Not available
Relative Density:	1.147	Vapor Density:	Not available
Solubility:	Complete	Partition Coefficient:	Not available
Flammability:	Not flammable	Auto-Ignition Temperature:	Not available
Flash Point:	None	Decomposition Temperature:	Not available
Upper/Lower Flammability or Explosive Limits:	Not applicable	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.

Conditions to Avoid:

Do not freeze. Keep away from heat, sparks, and open flame.

Incompatible Materials:

Strong Acids, Oxidizing Agents

Hazardous Decomposition Products:

In the event of combustion, carbon monoxide, carbon dioxide, and other miscellaneous unknown compounds may form. Do not breathe smoke or fumes. Wear suitable protective equipment.

Section 11**Toxicological Information**

Symptoms of Overexposure:	Immediate contact may cause irritation of the skin, eyes, and mucous membranes. Ingestion of large quantities of the material may be toxic.
Health Hazards:	
Eye:	Irritation of various degrees.
Skin:	Irritation of various degrees.
Inhalation:	May cause irritation to the respiratory tract and/or lungs.
Ingestion:	Intestinal tract irritant. Do not induce vomiting. Swallowing large quantities may be toxic.
Delayed Effects:	None known
Chronic Effects:	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 3 as the best guess without extensive laboratory studies.
Carcinogen:	This product does not contain any components in concentrations greater than or equal to 0.1% that are listed as known or suspected carcinogens by NTP, IARC, ACGIH, or OSHA.

Mixture	Acute Toxicity Data		
GCS-6310 (estimated)	Oral Toxicity LD ₅₀ = >2,000 mg/kg (Rat)	Inhalation Toxicity (Vapors) No Data Available	Dermal Toxicity (4hr) LC ₅₀ = >5,000 mg/kg (Rat)
Mixture Toxicity Estimation (ATEmix calculation found in chapter 3.1 of the GHS standard):			

Skin Irritation:	Irritant
Eye Irritation:	Irritant
Sensitization:	This product is not expected to cause respiratory or skin sensitization.
Teratogenicity/Mutagenicity:	This product is not expected to cause birth defects or genetic mutation.

Section 12**Ecological Information**

Components/CAS-No.	Acute Algae Toxicity:	Acute Fish Toxicity:	Acute Daphnia and Other Aquatic Invertebrates Toxicity:
Potassium Hydroxide / 1310-58-3	No Data Available.	LC ⁵⁰ , 96 hr, Gambusia Affinis = 80 mg/L	No Data Available.
2-Phosphonobutane-1,2,4-tricarboxylic Acid / 37971-36-1	No Data Available.	No Data Available.	No Data Available.
Homopolymer Maleic Acid / 26099-09-2	EC ⁵⁰ , 96 hr, Aquatic plants = >100 mg/L	LD ⁵⁰ , 96 hr, Fish = >100 mg/L	EC ⁵⁰ , 48 hr, Aquatic invertebrates = >100 mg/L
Acrylic Acid/2-Acrylamido-2-methylpropanesulfonic Acid /Sulfonic Acid Terpolymer / 40623-75-4	No Data Available.	LC ⁵⁰ , 96 hr, Rainbow Trout = >1,000 mg/L	EC ⁵⁰ , 48 hr, Daphnia Magna = >1,000 mg/L
(1-Hydroxyethylidene)-1,1-diphosphonic Acid / 2809-21-4	No Data Available.	No Data Available.	No Data Available.
Poly(acrylic) Acid / 9003-01-4	EC ⁵⁰ , 72 hr, Freshwater Algae = >100 mg/L	LC ⁵⁰ , 96 hr, Brachydanio Rerio = >100 mg/L	EC ⁵⁰ , 48 hr, Daphnia Magna = >100mg/L
Sodium Tolyltriazole / 64665-57-2	EC ⁵⁰ , 72h, S. Capricornutum = 26.2 mg/L	LC ⁵⁰ , 96hr, Salmo Gairdneri = 25 mg/L	LC ⁵⁰ , 48 hr, Daphnia Magna = 280 mg/L
1,3,6,8-Pyrenetetrasulfonic Acid, Tetrasodium Salt Hydrate / 59572-10-0	No Data Available.	No Data Available.	No Data Available.
Phosphorous Acid / 10294-56-1	No Data Available.	LC ⁵⁰ , 96 hr, Brachydanio Rerio = 6,980 – 9,784 mg/L	No Data Available.
Phosphoric Acid / 7664-38-2	No Data Available.	LC ⁵⁰ , 96 hr, Mosquito Fish = 138 mg/L	No Data Available.

Mobility:	No information available.
Persistence:	No information available.
Bio-Accumulative 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.

DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of. Discarded product, as sold, should not be considered a RCRA Hazardous Waste. Dispose of product in an approved chemical waste landfill or incinerate in accordance with applicable Federal, state and local regulations. Since the emptied container retains product residue, all labeled hazard precautions must be observed. Do NOT mix with other chemical wastes. Do not put solutions containing this product into sewer systems. Do not re-use empty containers.

Section 14**Transport Information**

DOT Shipping Name: This product is not DOT regulated when shipped by road or railway. Label: N/A

DOT Hazard Class: N/A

UN Number: N/A

Packing Group: N/A

Section 15**Regulatory Information**

USA Classification

OSHA Hazard Communication Standard: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA):

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 710.30.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312:

Immediate (Acute) Health Hazard	Yes
Delayed (Chronic) Health Hazard	No
Fire Hazard	No
Reactive Hazard	No
Sudden Release of Pressure Hazard	No

SARA Title III Section 302 Extremely Hazardous Chemicals (Reportable Quantities):

No components listed.

SARA Section 313 Toxic Chemicals:

No components listed.

CERCLA Reportable Quantities:

Component	CAS Number	RCRA Waste Number	Reportable Quantity
Potassium Hydroxide	1310-73-2	N/A	1,000 lbs
Phosphoric Acid	7664-38-2	N/A	5,000 lbs

FD&C Act:

This product is not approved for use in FDA applications.

Clean Air Act:

No components listed.

Clean Water Act:

Component	CAS Number
Potassium Hydroxide	1310-58-3
Phosphoric Acid	7664-38-2

Pennsylvania Worker and Community Right-To-Know Act:

Component	CAS Number	Hazard Type
Potassium Hydroxide	1310-58-3	Environmental
Phosphoric Acid	7664-38-2	Environmental

New Jersey Worker and Community Right-To-Know Act:

Component	CAS Number
Potassium Hydroxide	1310-58-3

Massachusetts Worker and Community Right-To-Know Act:

No components listed.

California Proposition 65:

No components listed.

CEPA Domestic Substances List (DSL):

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

Section 16**Other Information**

IMPORTANT: The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. **NO WARRANTY OF MERCHANT ABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTY OR GUARANTY OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, SUITABILITY, STABILITY OR OTHERWISE.** The information included herein is not intended to be all-inclusive as to the appropriate manner and/or conditions of use, handling and/or storage. Factors pertaining to certain conditions of storage, handling, or use of this product may involve other or additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the customer. **No suggestions for use are intended to, and nothing herein shall be construed as a recommendation to, infringe any existing patents or violate any laws, rules, regulations or ordinances of any governmental entity.**

Guardian CSC urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as to the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product.

Revised By: Tanner Martz

Revised: 01/31/23

*****End of SDS*****