



Safety Data Sheet

GCS-5604

Revised: 12/18/17

Health	1
Flammability	0
Reactivity	0

Section 1	Identification
------------------	-----------------------

Product Name:	GCS-5604	Company:	Guardian CSC
Product Description:	Boiler Water Treatment Chemical		6000 Susquehanna Plaza Drive
Transport Emergency:	Chemtrec 800-424-9300		York, PA 17406 800-297-8266 717-848-2570 Fax

Section 2	Hazard Identification
------------------	------------------------------

Hazard Classification:	Skin Irritation Category 3 Serious Eye Irritation Category 2, Sub-category 2B
Signal Word:	Warning
Hazard Statements:	Causes eye irritation. Causes mild skin irritation.

Precautionary statements

Prevention:	Wash affected areas thoroughly after handling. Wear protective gloves. Wear safety goggles. Avoid breathing mist/spray. In case of inadequate ventilation, wear respiratory protection.
Response:	If on skin (or hair): Wash with plenty of water. Specific treatment (see Section 4). Take off contaminated clothing and wash it before reuse. Wash contaminated clothing 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 swallowed: Rinse mouth, do NOT induce vomiting! If experiencing respiratory symptoms: Call a doctor
Storage:	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>
Sodium EDTA	64-02-8	10 – 20%
Potassium Hydroxide	1310-58-3	1 – 5%
Gluconic Acid	526-95-4	10 – 20%
Water	7732-18-5	Balance

Section 4**First-Aid Measures**

Eyes:	Remove contact lenses. Immediately flush with plenty of water for at least 20 minutes, holding eyelids apart to ensure flushing of the entire surface. Washing within one minute is essential to achieve maximum effectiveness. Seek medical attention.
Skin:	Immediately flush skin with plenty of soap and water for at least 20 minutes. Remove contaminated clothing and footwear. Wash contaminated clothing before reuse. Get medical attention if irritation develops.
Ingestion:	If swallowed, DO NOT induce vomiting. Give large amounts of water to drink. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person.
Inhalation:	If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.
Notes to Physician:	May aggravate existing skin, eye, and lung conditions. Note: Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5**Fire-Fighting Measures**

Product is a water solution and nonflammable. In a fire, this product may build up pressure and rupture a sealed container; cool exposed containers with water spray. Use self-contained breathing apparatus in confined areas; avoid breathing mist of spray.

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.
Hazardous combustion products:	May produce hazardous fumes or hazardous decomposition products.

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. 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 away from heat and open flame. Keep container closed when not in use.
Storage:	Store in a cool, dry place away from direct heat. Keep container tightly closed when not in use. Do not store in unlined metal containers. 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>Chemical</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>Other Exposure Limits</u>
Potassium Hydroxide	N/A	2 mg/m ³ (ceiling)	NIOSH; 2mg/m ³ (ceiling)

Exposure Controls: Local exhaust ventilation should be provided to control worker exposures and prevent health risk; and as necessary to reduce, prevent and control aerosol generation.

PPE:



Eye Protection: Wear chemical safety goggles. Have eye wash stations available where eye contact can occur.

Hand Protection: Wear gloves impervious to conditions of use.

Body Protection: Wear appropriate impervious clothing. Have safety showers available where skin contact can occur.

Respiratory Protection: Where concentrations in air may exceed limits given in this section or Section 2 and engineering, work practice or other means of exposure reduction are not adequate, NIOSH/MSHA approved respirators may be necessary to prevent overexposure by inhalation (see 29 CFR 1910.134).

Section 9	Physical and Chemical Properties		
------------------	---	--	--

Appearance:	Straw colored liquid	Melting point/freezing point:	Not available
Odor:	No appreciable odor	Initial boiling point and boiling range:	>212°F
Odor threshold:	Not available	Evaporation rate:	<1 (water = 1)
pH:	9.7 (as is)	Vapor pressure:	Not available
Relative density:	1.21 (@ 25°C)	Vapor density:	Not available
Solubility:	Completely soluble	Partition coefficient:	Not available
Flammability:	Not flammable	Auto-ignition temperature:	Not applicable
Flash point:	Not applicable	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:	Not anticipated under normal or recommended handling and storage conditions.
Conditions to Avoid:	Caution: this material will attack soft metals like aluminum, brass, copper, magnesium and any other soft metal attacked by chelants
Incompatible Materials:	Strong bases.
Hazardous Decomposition Products:	Thermal decomposition may release carbon monoxide, and carbon dioxide.

Section 11	Toxicological Information
-------------------	----------------------------------

Health Hazards:

Eye:	Direct eye contact may cause irritation, redness, swelling and pain that can become severe on prolonged contact.
Skin:	May cause skin irritation, especially on prolonged contact.
Inhalation:	Inhalation of mist or spray may irritate respiratory tract.
Ingestion:	May cause irritation of the mouth throat and stomach. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Delayed Effects: None known

Chronic Effects: May aggravate existing skin, eye, and lung conditions.

Carcinogen: No ingredients listed on NTP, IARC, or OSHA

Section 12	Ecological Information
-------------------	-------------------------------

Components/CAS-No.	Acute Algae Toxicity:	Acute Fish Toxicity:	Toxicity to daphnia and other aquatic invertebrates:
GCS-5604	No information available.	No information available.	LC ₅₀ (48 hr static) - 1159 mg/L Ceriodaphnia dubia

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
-------------------	--------------------------------

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.

DOT Hazard Class: N/A

UN Number: N/A

Packing Group: N/A

Section 15	Regulatory Information
-------------------	-------------------------------

Toxic Substances Control Act (TSCA): All components are listed on the TSCA Inventory of Chemical Substances or are exempt from TSCA Inventory requirements.

SARA Title III/CERCLA Reportable Quantities (RQ): N/A

SARA Section 302 Extremely Hazardous Substances: No components listed.

SARA Section 311/312 Hazard Class: SARA Acute Health Hazard

SARA Section 313 Toxic Chemicals: No components listed.

FD&C Act: This product is approved for use in FDA applications when following the guidelines given in 21 CFR 173.310.

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 MSDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this MSDS 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: Matt Weir

Revised: 12-18-17

*****END OF SDS*****