



# Safety Data Sheet

## Bluegrass KESCO

Water Treatment Products and Technical Services

**PRODUCT NAME: KL-609S**

**Revision Date: 10Feb2014**

Bluegrass KESCO encourages and expects customers to read and understand the entire Safety Data Sheet, as there is important information throughout the document. Follow the precautions identified in this document unless use conditions warrant other appropriate methods or actions.

### Section 1

### Identification

**Product Name:** KL-609S

**Company Identification:**

Bluegrass KESCO

1101 Industrial Blvd.

Louisville, KY 40219

**Information Number:** (502) 969-4499

**24-Hour Emergency Phone**

Chemtrec

(800) 424-9300

**Product recommended use:**

KL-609S is used to control the corrosion of both mild steel and copper alloys in closed recirculating water systems. We recommend that you use this product in a manner consistent with the listed use.

### Section 2

### Hazard Identification

**Hazard Classification:**

**Physical.....:** The product is not classified as a physical hazard.  
**Health.....:** Corrosive to eyes and skin - Category 1C  
Acute toxicity, dermal - Category 4  
Acute toxicity, oral - Category 4  
**Environmental:** Acute aquatic toxicity - Category 3

**Label Elements:**

**Symbol.....:**



**Signal word.....:** Danger

**Hazard statement.....:**

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H402 Harmful to aquatic life.

**Precautionary statements.....:**

- P101 If medical advice is needed, have product container or label on hand.
- P270 Do not eat, drink or smoke when using this product.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container in accordance with local regulation.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediately medical attention.
- P303+P361+P353 IF ON SKIN: Take off all contaminated clothing immediately. Rinse skin with water.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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- P308+ P313 If exposed or concerned: Get medical advice/attention.

## Section 3 Composition / Information on Ingredients

This product is a mixture.

<u>Component Name</u>	<u>CAS #</u>	<u>Amount</u>	<u>Classification</u>
Sodium Nitrite	7632-00-0	10 – 30 %	Oxidizer Toxic if swallowed (Category 3) Acute aquatic toxicity (Category 3)
BSI 99*	****	< 5 %	Skin irritation (Category 3) Eye irritant (Category 2)
Sodium Hydroxide	1310-73-2	< 5 %	Skin corrosion (Category 1) Serious eye damage (Category 1) Acute aquatic toxicity (Category 3)
Sodium Tetraborate 10 MOL	1303-96-4	< 8 %	Skin corrosion (Category 1) May damage fertility or the unborn child
Sodium Tolytriazole	64665-57-2	< 5 %	Toxic if swallowed (Category 3)

\* BSI 99 is claimed as trade secret in accordance with the provision of OSHA 29 CFR 1910.1200(i).

## Section 4 First Aid Measures

- Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Remove contact lenses. Take exposed individual to a health care professional, preferably an ophthalmologist, for further evaluation.
- Skin Contact:** Wash exposed area with plenty of soap and water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists consult a health care professional.
- Inhalation....:** If exposure by inhalation is suspected, immediately move exposed individual to fresh air. If individual experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic, seek a health care professional immediately.
- Ingestion.....:** DO NOT INDUCE VOMITING. Rinse with copious amounts of water. Irrigate the esophagus and dilute stomach contents by slowly giving one (1) to two (2) glasses of water. Avoid giving alcohol or alcohol related products. In cases where the individual is semi-comatose, comatose or convulsing, DO NOT GIVE FLUIDS BY MOUTH. In case of intentional ingestion of the product seek medical assistance immediately; take individual to nearest medical facility.

### SYMPTOMS OF EXPOSURE:

- Acute.....:**
- Eyes Contact:** Moderate to severe eye irritation or corrosion. The effects depend on the length of exposure, solution concentration, and first aid measures.
  - Skin Contact:** Moderate to severe skin irritation or corrosion. The effects depend on the length of exposure, solution concentration, and first aid measures.
  - Ingestion.....:** Not a likely route of exposure. Corrosive; causes chemical burns to the mouth, throat and stomach. Toxic if swallowed. Ingestion of sodium nitrite can cause methemoglobinemia which can lead to cyanosis and possible death.
  - Inhalation.....:** Not a likely route of exposure. Elevated temperatures or mechanical action may form vapors, mists or fumes which may be irritating to throat and lungs.
- Chronic.....:** Repeated ingestion of small amounts of sodium nitrite causes drops in blood pressure, rapid pulse, headaches and visual disturbances. It may also react with organic amines in the body to form carcinogenic nitrosamines.

**Aggravation of Existing Conditions:** A review of available data does not identify any worsening of existing conditions.

### NOTES TO PHYSICIAN:

**Treatment:** Treatment of exposure should be directed at the control of symptoms and the clinical condition. Measures against circulatory shock, respiratory depression and convulsions may be needed.

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## Section 5

## Fire-Fighting Measures

<b>Suitable extinguishing media.....:</b>	Not expected to burn. Use extinguishing media appropriate for surrounding fire.
<b>Unsuitable extinguishing media.....:</b>	None
<b>Hazards during fire-fighting.....:</b>	None known.
<b>Hazardous combustion products.....:</b>	May generate oxides of carbon (COx) and oxides of nitrogen (NOx) under fire conditions.
<b>Special protective equipment/procedures:</b>	In case of fire, wear a full face positive-pressure self-contained breathing apparatus and protective suit.

## Section 6

## Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:** Restrict access to area as appropriate until clean-up operations are complete. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Stop or reduce any leaks if it is safe to do so. Ventilate spill area if possible. Ensure clean-up is conducted by trained personnel only. Do not touch spilled material. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Notify appropriate government, occupational health and safety, and environmental authorities.

**Environmental precautions:** Prevent material from entering sewers or waterways. Spilled product may pose a risk to the aquatic ecosystem if released.

### Methods and materials for containment and cleaning up:

**SMALL SPILLS:** Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area.

**LARGE SPILLS:** Contain liquid by using absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Clean contaminated surfaces with water or aqueous cleaning agents. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

## Section 7

## Handling and Storage

**Handling....:** Do not get in eyes, on skin, or on clothing. Do not take internally. Use with adequate ventilation. Do not breathe vapors/gases/dust. Keep the containers closed when not in use. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Ensure all containers are labeled. Do not mix with acids.

**Storage.....:** Store in suitable labeled containers. Store the containers tightly closed. Store separately from acids.

## Section 8

## Exposure Controls / Personal Protection

### Control parameters:

<u>Component Name</u>	<u>CAS #</u>	<u>Exposure Limits</u>
Sodium Hydroxide	1310-73-2	2 mg/m <sup>3</sup> (ceiling) - ACGIH 2 mg/m <sup>3</sup> (PEL) - OSHA
Sodium Tetraborate	1303-96-4	2 mg/m <sup>3</sup> - ACGIH/TLV 5 mg/m <sup>3</sup> (dust) - OSHA/PEL

The other components do not have assigned exposure limits.

### Exposure controls:

**General Advice:** These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities. Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Ensure that eyewash stations and safety showers are close to the workstation location.

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<b>Personal Protection</b>	<b>Eye Protection.....:</b>	Wear safety glasses with side shields or chemical safety goggles. Have eye-wash stations available where eye contact can occur.
	<b>Skin Protection.....:</b>	Avoid skin contact. Wear gloves impervious to conditions of use. A safety shower should be located in the work area. Recommended protective materials include: butyl rubber, natural rubber ("latex"), neoprene, and nitrile/butadiene rubber ("NBR").
	<b>Respiratory Protection:</b>	Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced. Depending on the working conditions, wear a respiratory mask with filter(s) P or use a self-contained respirator. The choice of a filter type depends on the amount and type of chemical being handled in the workplace. Regarding filter characteristics, contact your respiratory protection supplier.
	<b>Ingestion.....:</b>	Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.
<b>Engineering Controls.....:</b>		General ventilation is recommended.

## Section 9 Physical and Chemical Properties

<b>Flashpoint.....:</b>	>212° F (Pensky-Martens Closed Cup)
<b>Boiling Point.....:</b>	>212° F
<b>Melting Point.....:</b>	Not applicable to liquids
<b>% Solubility in Water.....:</b>	100% soluble
<b>Appearance / Odor.....:</b>	Yellow, clear liquid with slight odor
<b>Lower Flammability Limit:</b>	Not Flammable
<b>Upper Flammability Limit:</b>	Not Flammable
<b>Specific Gravity at 77° F...:</b>	1.20
<b>pH.....:</b>	11.0 to 12.0

## Section 10 Stability and Reactivity

<b>Reactivity.....:</b>	No dangerous reaction known under conditions of normal use.
<b>Chemical stability.....:</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions...:</b>	Polymerization will not occur.
<b>Conditions to avoid.....:</b>	Avoid extremes of temperature.
<b>Incompatible materials.....:</b>	Acids. Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors. Contact with reducing agents (e.g. hydrazine, sulfites, sulfide, aluminum or magnesium dust) may generate heat, fires, explosions and toxic vapors. Do not mix with amines. Sodium nitrite can react with certain amines to produce N-nitrosamines, many of which are cancer-causing agents to laboratory animals.
<b>Hazardous decomposition products:</b>	Thermal breakdown of this product during fire or very high heat conditions may generate the following decomposition products: carbon and nitrogen oxides.

## Section 11 Toxicological Information

The following results are for sodium nitrite.

<b>Acute Oral Toxicity:</b>	Species: Rat LD <sub>50</sub> = 180 mg/kg
<b>Sensitization.....:</b>	Nitrite sensitive individuals should not handle this product.
<b>Carcinogenicity.....:</b>	None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

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<b>Teratogenicity and Embryotoxicity</b>	Experimental animal studies with sodium nitrite have shown reproductive effects in the offspring of treated parents. These effects are not transmissible.
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## Section 12 Ecological Information

### Ecotoxicological Effects:

The following results are for a similar product.

#### **Acute Fish Results:**

Species	Exposure	LC <sub>50</sub>
Rainbow Trout	96 hrs	38 mg/l
Fathead Minnow	96 hrs	303 mg/l

#### **Acute Invertebrate Results:**

Species	Exposure	LC <sub>50</sub>	EC <sub>50</sub>
Daphnia magna	48 hrs	250 mg/l	120 mg/l
Ceriodaphnia dubia	48 hrs	138 mg/l	

### Persistence and Degradation:

**Chemical Oxygen Demand (COD):** 77,600 mg/l

**Biological Oxygen Demand (BOD):**

Incubation Value	Value
5 days	< 2 mg/l

### Mobility:

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages:

Air	Water	Soil/Sediment
< 5%	30 - 50%	50- 70%

**General comments:** Based on the components' ecological toxicity this product is not expected to cause adverse effects on aquatic organisms. In water systems, this product may cause an increase in the pH level.

## Section 13 Disposal Considerations

**Product and packaging disposal:** Any disposal practice must be in compliance with all local and national laws and regulations. Do not dump into any sewers, on the ground, or into any body of water.

## Section 14 Transport Information

**DOT Shipping Name:** UN1760, Corrosive liquid, N.O.S. (contains Sodium hydroxide, Sodium nitrite), Class 8, PGIII

*Unless otherwise stated, the shipping information provided above applies only to non-bulk containers of this product. Proper shipping name and general shipping information may vary depending on packaging and mode of shipment. All products shipped from Bluegrass KESCO locations have been properly packaged and labeled according to appropriate hazardous materials shipping regulations. If any alteration of packaging, product, or mode of transportation is further intended, different shipping information (including but not limited to proper shipping name, RQ designation, and labeling) may apply. For further information pertaining to the shipping requirements for this product, contact Bluegrass KESCO.*

## Section 15 Regulatory Information

The following Regulations are known to apply to the use and disposal of this product. Additional Federal, State and Local regulation may also be applicable.

**SARA (Superfund Amendments and Reauthorization Act):**

**SARA 302 Extremely Hazardous Substances List....:** No components of this product are listed.

**SARA 312 Hazard Category.....:** Immediate (Acute) Health Hazard.



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<i>SARA 313 Toxic Chemicals List</i> .....:	The following components are listed on the SARA 313 Toxic Substances List (may be listed as categories): Sodium Nitrite and Sodium Hydroxide.
<i>CERCLA (Comprehensive Environmental Response, Compensation and Liability Act):</i>	The following components are listed on the CERCLA Hazardous Substances List (may be listed as categories): Sodium Nitrite, RQ = 100 lbs. Sodium Hydroxide, RQ = 1,000 lbs.
<i>RCRA (Resource Conservation and Recovery Act) Listed Hazardous Waste:</i>	When disposed of, this product may be regulated as a RCRA Hazardous Waste with the characteristic of corrosivity due to the pH of the neat material.
<i>Clean Air Act (CAA)</i> .....:	No components of this product are listed.
<i>CWA (Clean Water Act) Listed Substances</i> .....:	No components of this product are listed.
<i>FDA (Food and Drug Administration)</i> .....:	This product is not approved for food contact uses.
<i>TSCA (Toxic Substances Control Act) Applicability</i> .....:	All components are listed on TSCA Inventory.
<i>FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act)</i> ..:	This product is not a registered pesticide.

## STATE REGULATIONS:

*Various State Right to Know Acts:* Non-proprietary hazardous chemicals are listed in Section 3 of this Safety Data Sheet. Should you require further information on specific proprietary chemicals or inert ingredients please contact Bluegrass KESCO.

## Section 16

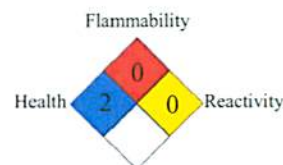
## Other Information

*National Fire Protection Association (NFPA) Ratings:* This information is intended solely for the use of individuals trained in the NFPA system.

**HMIS/NPCA Ratings:** Health 2; Flammability 0; Reactivity 0

**NFPA Ratings**.....: Health 2; Flammability 0; Reactivity 0

**0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme**



**Issue Date**.....: 10Feb2014

**Version Number:** 0

The information on this Safety Data Sheet reflects the latest information and data that we have on hazards, properties, and handling of this product under the recommended conditions of use. Any use of this product or method of application which is not described in the Product Data Sheet is the responsibility of the user. This Safety Data Sheet was prepared to comply with the last version of the OSHA Hazard Communication regulations.

Bluegrass KESCO warrants that this product conforms to chemical description and is reasonably fit for the purpose referred to in the directions for use when used in accordance with the directions under normal conditions.

Seller makes no other warranty or representation of any kind, express or implied, concerning the product, including NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS OF THE GOODS FOR ANY OTHER PARTICULAR PURPOSE. No such warranties shall be implied by law, and no agent of seller is authorized to alter this warranty in any way except in writing with specific reference to this warranty.

The exclusive remedy against seller shall be a claim for damages not to exceed the purchase price of this product, without regard to whether such a claim is based upon breach of warranty or tort.

Any controversy or claim arising out of or relating to this contract, or breach thereof, shall be settled by arbitration in accordance with the commercial arbitration rules of the American Arbitration Association, and judgment upon the award rendered by the Arbitration(s) may be entered in any court having jurisdiction thereof.