

**TERLYN**  
**INDUSTRIES**  
*Incorporated*

**800-200-4112**  
*Ph: 727-592-0772 Fax: 727-592-0833*  
**Advanced Water Treatment Systems**

**LSB 4000**

**Locomotive Steam  
Boiler  
Water Treatment**

**Revision Date: 03/10/2000**

**24 Hour Emergency Phone:  
1-800-244-3924**

**SECTION 1**

**OSHA HAZARD CLASSIFICATIONS**

Corrosive to eyes and irritating to skin.

**SECTION 2**

**HAZARDOUS COMPONENTS**

The components of this product comprise proprietary information and is not available to the general public. Confidential proprietary information on this produce is available to the proper authorities pursuant to a signed Non-Disclosure Agreement between *TERLYN INDUSTRIES, Inc.* and said authority.

**SECTION 3**

**PRECAUTIONARY LABEL INFORMATION AS PRESCRIBED BY THE U.S. EPA**

This section is not applicable to non-biocides.

**SECTION 4**

**FIRST AID INFORMATION**

- **Eye Exposure:** Flush immediately with copious amounts of tap water or normal saline (minimum of 15 minutes).
- Take exposed individual to a health care professional, preferably an ophthalmologist, for further evaluation.
- **Skin Exposure:** Wash exposed area with soap and water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists, consult a health care professional immediately.
- **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 mouth with copious amounts of water or milk first. Irrigate the esophagus and dilute stomach contents by slowly giving one (1) to two (2) glasses of water or milk. Avoid giving alcohol or alcohol related products. In cases where the individual is semi-comatose or convulsing, DO NOT

GIVES FLUIDS BY MOUTH. In case of intentional ingestion of the product seek medical assistance immediately; take individual to nearest medical facility.

**Note to Physician:** No specific antidote is known. Probable mucosal damage.

- May contraindicate the use of gastric lavage.  
Treat symptoms. For additional product formation call *TERLYN INDUSTRIES, Inc.* at 1-800-200-4112.

## SECTION 5

## PRIMARY ROUTES OF EXPOSURE

### Effects from Acute Exposure:

**Eye Exposure:** .....Corrosive. Effects may range from moderate to severe corrosion depending on the length of exposure, solution concentration and first aid measures.

**Skin Exposure:** ....Irritant. Irritation will depend on solution strength, length of exposure and first aid measures.

**Inhalation:** .....May cause irritation or corrosion of mucous membranes and the lungs. Exposed individuals should be monitored.

**Ingestion:** ..... Ingestion is not expected to be a primary route of exposure.No data is available on human ingestion.

**Medical Conditions Generally Aggravated by Exposure:** .... Not Applicable

## SECTION 6

## TOXICOLOGICAL INFORMATION

**Health Hazards (acute and chronic):** .....Corrosive to eyes and irritating to skin.

### Acute Effects:

- Acute Oral LD50: ..... 2,000 mg/kg
- Acute Dermal LD50: ..... 2,500 mg/kg
- Carcinogenicity: ..... Not listed in any of OSHA Standard, Section 1910.1200 sources as carcinogenic. Not tested by *TERLYN INDUSTRIES, Inc.*

## SECTION 7

## PHYSICAL AND CHEMICAL PROPERTIES

- Freezing Point: ..... <0E C (<32E F)
- Boiling Point: ..... >100E C (>212E F)
- Vapor Pressure (MMHG): ..... As Water
- Vapor Density (Air=1): ..... As Water
- Specific Gravity (H<sub>2</sub>O=1): ..... 1.10 g/ml at 25E C
- Percent Volatiles by Volume: ..... Not Tested
- pH (Neat Solution): ..... 2.75
- pH (100 ppm in water): ..... Same As Water
- Solubility in Water: ..... Completely in Water
- Appearance and Odor: ..... Clear Light Yellow Liquid, Slight Odor

## SECTION 8

## FIRE AND EXPLOSION IFORMATION

Flash Point (Method Used): ..... None      Extinguishing Media: ..... Stable  
Flammable Limits: ..... Not Applicable      Special Fire Fighting Procedures: ..... Not Applicable  
LEL: ..... Not Applicable      Unusual Fire and Explosion Hazards..... Not Applicable  
UEL: ..... Not Applicable

**SECTION 9**

**REACTIVITY INFORMATION**

**Stability:** .....Stable

**Incompatibility (Materials to avoid):** .....Strong acids, strong oxidizers, anionic polymers

**Hazardous Decomposition or By Products:** ..... Exposure to fire may generate oxides of phosphorous, nitrogen, and/or carbon

**SECTION 10**

**HANDLING PRECAUTIONS**

Rubber gloves and safety glasses or goggles required.      **Ventilation:** ..... Not Applicable  
Body-protective clothing and shoes are recommended.      **Respiratory Protection:** ..... Not Applicable  
Eye-wash fountains in the work area are recommended.      **Work/Hygienic Practices:** ..... Not Applicable

**SECTION 11**

**SATISFACTORY MATERIALS OF CONSTRUCTION**

ABS	Tygon	Plexiglas	Fiberglass	Butyl Rubber	Buna-N Rubber	
PVC	Teflon	Tyryl 880	Polyethylene	Polypropylene	SiliconeRubber	Viton
	Hypalon	Neoprene	Gum Rubber	EPDM Rubber	Stainless Steel 304/316	

The materials listed above have tested compatible with LSB 8000. This is a representative list and although other materials may be compatible with this product, the use of materials not listed above cannot be guaranteed and could result in damages to such materials and other property, or personal injuries. No data concerning any materials not listed above should be implied by the user.

**SECTION 12 SPILL, LEAK, AND DISPOSAL PROCEDURES**

**Steps to be taken in case material is released or spilled:**

Before responding to a spill or leak of this product, review each section of this MSDS. Follow the recommendations given in the handling precautions sections. Check the fire and explosion data section to determine if the use of non-sparking tools is merited. Insure that spilled or leaked product does not come into contact with materials listed as incompatible. If irritating fumes are present, consider evacuation of enclosed areas.

Initially minimize area affected by the spill or leak. Block any potential routes to water systems (e.g. sewers, streams, lakes, etc.). Based on the product's toxicological and chemical properties, and on the size and location of the spill or leak, assess the impact on contaminated environments (e.g. water systems, ground, air equipment, etc.). There are no methods available to completely eliminate any toxicity this product may have on aquatic environments. Minimize adverse effects on these environments. Determine if federal, state, and/or local release notification is required (see regulatory classifications sections of this MSDS).

Recover as much of the pure product as possible into appropriate containers. Address clean-up of contaminated environments. Spill or leak residuals may have to be collected and disposed of. Clay soil, or commercially available absorbents may be used to recover any material that cannot readily be recovered as pure product. Flushing residual material to an industrial sewer if present at the site of a spill may be acceptable if authorized approval is obtained. If product and/or spill/leak residuals are flushed to an industrial sewer, insure that they do not come into contact with incompatible materials. Contact the person(s) responsible for the operation of your facility's industrial sewer system prior to the intentionally flushing or pumping spills or leaks of this product to the industrial sewer.

### **Disposal Guidelines:**

Determine if waste containing this product can be handles by available industrial effluent system or other on-site waste management unit. If off-site management is required, contact a company experienced in industrial waste management. This product is not specifically listed in 40CFR as a resource conservation and recovery act (RCRA) hazardous waste. However, spill or leak residuals may meet the criteria of a characteristic hazardous waste under this act. Check the characteristics of the material to be disposed of and/or the physical and reactivity data given in this MSDS for the neat product. Follow federal, state and local regulations governing the disposal of waste materials.

### **Container Disposal:**

Empty containers as defined by appropriate sections of the RCRA, are not RCRA hazardous wastes. However, insure proper management of any residuals remaining in the container.

**24 Hour Emergency Response Assistance: 1-800-255-3924**

<b>SECTION 13</b>	<b>TRANSPORTATION AND SHIPPING INFORMATION</b>
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**DOT Shipping Name:** .....Not Regulated

<b>SECTION 14</b>	<b>REGULATORY INFORMATION</b>
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The following regulations are known to apply to the use and disposal of this product. Additional federal, state and local regulations may also be applicable.

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

**SARA 302 Extremely Hazardous Substances List:** .. (40 CFR 300) Corrosivity

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

**SARA 313 Toxic Chemicals List:** ..... No Section 313 listed substances are present above de minimus levels.

### **CERCLA**

**(Comprehensive Environmental Response Compensation and Liability Act):** .... No components of this product are listed.

### **RCRA**

**(Resource Conservation and Recovery Act) Listed Hazardous Wastes:** ..... No components of this product are listed.

**CWA**

**(Clean Water Act):** ..... No components of this product are listed.

**FDA:** ..... This product is not approved for food contact uses.

**TSCA:** ..... All components are listed on TSCA inventory.

**FIFRA:** ..... This product is not a registered pesticide.

**HMIS/NPCA Ratings:** ..... Health 2; Flammability 1; Reactivity 1

**NFPA Ratings:** .....Health 2; Flammability 1; Reactivity 1

**STATE REGULATIONS:**

Various State Right to Know Acts: Should further information be required on specific proprietary chemicals, and/or inerts, contact *TERLYN INDUSTRIES, Inc.* Proprietary information is available contingent to a signed Non-Disclosure Agreement.

The information on this Material 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 Material Safety Data Sheet was prepared to comply with the OSHA Hazard Communication regulations

*TERLYN INDUSTRIES, Inc.* warrants that this product conforms to its 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. Buyer assumes all risk if used contrary to such directions.

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 a specific reference to this warranty.

The exclusive remedy against seller shall be a claim for damages not to exceed the purchase price of the 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 Arbitrator(s) may be entered in any court having jurisdiction thereof.