Section 1 - Identification

Product Name: Boiler-Rite TM Organic Descaler An organic acid. Revised: 6/12/15

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24 HOUR EMERGENCY RESPONSE

1-800-535-5053 (U.S. & Canada) 001-352-323-3500 (International)

Section 2 - Hazards Identification

Hazard categories: Skin Corrosion/Irritation 2; Eye Corrosion/Irritation 2A; Skin Sensitization 1

Hazard statements: Causes skin and serious eye irritation. May cause an allergic skin reaction.

Signal word: Warning Pictogram: Exclamation Precautionary statements

<u>Prevention</u>

Wash hands thoroughly after handling. Wear protective gloves such as latex.

Wear eye protection such as safety glasses with side shields. Avoid breathing vapors.

Contaminated work clothing should not be allowed out of the workplace.

Response

IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

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 attention

Storage: None.

<u>Disposal:</u> Dispose of contents in accordance with local, regional, national and international regulations.

Section 3 - Composition / Information on Ingredients					
Ingredient	C.A.S. No.	Concentration			
Water	7732-18-5	85%			
Urea hydrochloride	506-89-8	8%			
Hydrochloric acid	7647-01-0	6%			

The remaining ingredients are not reportable as described in Appendix D to Sec. 1910.1200 Table D.1.

Section 4 - First Aid Measures

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing, lifting upper and lower eyelids occasionally. If eye irritation persists: Get medical attention. **Skin Contact:** With the concentrate remove contaminated clothing and shoes immediately. With diluted product remove soaked clothing and shoes as soon as practical. If there is no redness or irritation wash with soap and water. If there is redness or irritation flush skin with running water. If irritation persists, get medical attention. Wash contaminated clothing before reuse. Discard shoes if more than damp with concentrate.

Inhalation: Move affected person to fresh air. If irritation persists get medical attention.

Ingestion: If the product is swallowed, do NOT induce vomiting. If the affected person is conscious, give a glass or two of water or milk to drink. Treat for shock by keeping person warm and quiet. Get medical attention.

Section 5 - Fire-Fighting Measures

Extinguishing Media: Any

Special Fire Fighting Procedures: None.

Unusual Fire And Explosion Hazards: At temperatures above 140°F it may release hydrogen gas when in contact with metals.

Section 6 - Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Clean up small spills with a rag or mop using an alkaline detergent or a 50% solution of baking soda. Spills of 1 gallon or less can be washed to a sanitary sewer with plenty of water. Larger spills should diked to prevent spreading and then collected into clean pails or drums or absorbed with a non-reactive absorbent (sand or clay).

Section 7 - Handling and Storage

Empty containers retain product residue and may be hazardous. Observe all precautions given in this data sheet and on label. Keep container closed. Store in a cool, well ventilated area. Remove leaking containers.

Chlorine Gas Warning: If this product contacts bleach or a cleaner containing bleach or chlorinating biocides (hypochlorites), it could produce a dangerous gas (chlorine). If your facility uses a chlorine containing product, look at the MSDS on that product now, to learn what to do if chlorine is accidentally produced.

Section 6 - Exposure Controls / Personal Protection							
Ingredient	C.A.S. No.	Concentration	TWA(source)	STEL	Ceiling		
Hydrochloric acid	7647-01-0	6%	None	None	5 ppm(1.2.4), 2 ppm(3)		

(1)=OSHA (2)=NIOSH (3)=ACGIH (4)=CANADA TWA=8 hour Time Weighted Average STEL=15 minute TWA Ceiling=Instantaneous Ingredients not shown either have no known limits or are below reportable levels in section 3 above.

<u>Ventilation</u>: Scale removal creates carbon dioxide gas and may create hydrogen gas. In enclosed areas use exhaust fans if present or open doors and windows and use portable fans to prevent build-up of gasses. Carbon dioxide is heavier than air and can accumulate in low places causing a suffocation hazard. Do not smoke or allow flames or sparks close to boiler openings where hydrogen gas could reach flammable limits.

Respiratory Protection: None required when used as directed.

Protective Gloves: Wear rubber gloves. Do not use disposable latex. Disposable Nitrile is acceptable.

Eye Protection: Wear safety glasses with side shields or chemical goggles.

<u>Other Protective Equipment</u>: When considerable splashing is possible wearing full impervious clothing is suggested. An eye wash station near by is not mandatory, but would greatly reduce symptoms more quickly.

Section 9 - Physical and Chemical Properties				
Appearance and Odor: A tan liquid with mild odor.				
Odor Threshold: Not Available	Vapor Pressure: Not Available			
pH: concentrate 1.0 ± 0.5	Vapor Density: Not Available			
Melting Point: Not Available	Relative Density (Specific Gravity): 1.15			
Freezing Point: Not Available	Solubility(ies): Water: 100%			
Boiling Point, Initial: 212° F.	Partition coefficient: Not Available			
Boiling Range: Not Available	Auto-ignition Temperature: Not Available			
Flash Point: None. (ASTM D-56 closed cup)	Decomposition Temperature: Not Available			
Evaporation Rate: ~1 (Water = 1)	Viscosity: Same as water			
Flammability: (solid, gas): Not Applicable	Volatiles Percent: 75%			
Upper Explosive Limit: None	V.O.C.: 0% - 0 grams/liter			
Lower Explosive Limit: None				

Section 10 - Stability and Reactivity

Incompatibility: Alkalis, bleach, oxidizers, cyanides, sulfides. Hazardous Decomposition Products: None

Section 11 - Toxicological Information

Primary Routes of Entry: X Skin contact; Skin absorption; X Inhalation; X Ingestion

Potential Health Effects:

Eyes - Concentrate causes severe irritation. Dilutions may cause mild to moderate irritation.

Skin - Concentrate causes irritation. Brief contact has little or no effect when rinsed off promptly.

Swallowing - Concentrate causes irritation, possibly severe, to mucous membranes.

Breathing - not a likely route of entry when used as directed.

Section 12 - Ecological Information

Do not dispose of in the environment.

Section 13 - Disposal Considerations

<u>Waste Disposal Method</u>: Dispose of up to 1 gallon of concentrate in the sanitary sewer with a large amount of water. Some sewage departments may allow you to dispose of larger quantities without neutralizing. Call them for approval. Larger amounts may have to be neutralized to within the pH limits of your waste water system.

Section 14 - Transport Information

D.O.T. Hazard Class: Not regulated for land transport by the D.O.T.

Section 15 - Regulatory Information

The components of this product are on the TSCA inventory of chemical substances.

Section 16 - Other Information

NFPA: H:1 F:1 I:0 **HMIS**[®] **III:** H:2 F:1 P:0 These ratings estimates are to be used only with a fully implemented training program in the workplace. NFPA[®] is a mark registered by the NFPA. HMIS[®] is a mark registered by the NPCA.

Replaces sheet dated 4/28/15. Corrected eye warning to serious eye irritation.

The information accumulated herein is believed to be accurate but is not warranted to be. Recipients are advised to confirm in advance that the information is current, applicable, and suitable to their circumstances.