

Issue Date: 17-May-2010

Revision Date: 18-May-2016

Version 3

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name United 827 ESA Descaler for Steam Boilers Concentrate
Featuring Earth Smart® Acid Technology

Other means of identification

SDS # UNITED-827

Recommended use of the chemical and restrictions on use

Recommended Use ESA Descaler for Steam Boilers Concentrate
Uses Advised Against For industrial and institutional use only.

Details of the supplier of the safety data sheet

Supplier Address

United Laboratories, Inc.
320 37th Avenue
St. Charles, IL 60174
www.unitedlabsinc.com
www.unitedlabsinc.ca

Emergency Telephone Number

Company Phone Number 800-323-2594 (to reorder)
Emergency Telephone (24 hr) INFOTRAC 1-800-535-5053 (North America)
1-352-323-3500 (International)

2. HAZARDS IDENTIFICATION

Appearance Red liquid

Physical State Liquid

Odor Little to no odor

Classification

| | |
|------------------------|-------------|
| Skin irritation | Category 2 |
| Serious eye irritation | Category 2A |
| Acute toxicity | Category 4 |

Signal Word

Warning

Hazard Statements

Can cause serious eye irritation. Can cause skin irritation. May be harmful if swallowed.



Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements - Response

Immediately call a poison center or doctor/physician.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

Precautionary Statements – Storage

Store according to local, regional, national and international rules and regulations.

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local, regional, national and international rules and regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% |
|---------------|-------------|----------|
| Trade Secret | Proprietary | 40-50 |

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

- General Advice** Immediately call a poison center or doctor/physician.
- Eye Contact** Flush with plenty of cool water for at least 15 minutes. Hold eyelids apart to-ensure thorough rinsing of the entire surface of the eye and lids with water. Immediately call a poison center or doctor/physician.
- Skin Contact** Wash with soap and water. Remove contaminated clothing. If irritation persists, call a physician or poison control center.
- Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Apply CPR if needed. Immediately call a poison center or doctor/physician.
- Ingestion** Rinse mouth. Do not induce vomiting. Call a physician or poison control center immediately. Drink large amounts of water. If vomiting occurs, give fluids again. Never give anything by mouth to a person who is unconscious or convulsing.

Most important symptoms and effects

- Symptoms** If in eyes- irritation, pain, watering or redness. If on skin- mild irritation or redness. Inhalational - no known significant effects or critical hazards. Ingestion-harmful if swallowed. Irritating to mouth, throat and stomach. Any additional important symptoms and effects are described in Section 11.

Indication of any immediate medical attention and special treatment needed

- Notes to Physician** Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water, dry chemical, foam or carbon dioxide.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

At temperatures above 60°C/140°F acid action on most metals may release hydrogen, a highly flammable and explosive gas

Hazardous Combustion Products Nitrogen oxides (NOx). Acid mist. Carbon oxides.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment as required.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Absorb spills with dry sand or earth, then place in chemical waste container for disposal. Neutralize washings with a base such as soda ash or lime. Flush residual spill area with large amounts of water. Exercise caution during neutralization as considerable heat may be generated.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Wash thoroughly after handling. Use personal protection recommended in Section 8. Do not breathe dust/fume/gas/mist/vapors/spray. Note: If diluting, always add this product slowly to water with constant stirring. When diluting always add to water.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials. Protect container from physical damage. Keep out of the reach of children.

Incompatible Materials Bases. Oxidizers. Chlorates. Nitrates.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering Controls Normally not required. Ventilation and local exhaust generally adequate.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety goggles are recommended.

Skin and Body Protection Chemical resistant gloves (rubber or nitrile) are recommended.

Respiratory Protection Normally not required if good ventilation is maintained.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | | | |
|-----------------------|------------|-----------------------|-------------------|
| Physical State | Liquid | Odor | Little to no odor |
| Appearance | Red liquid | Odor Threshold | Not determined |
| Color | Red | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|------------------------------|-----------------------|-------------------------|
| pH | 1 | |
| Melting Point/Freezing Point | -17.5 °C / -0.5 °F | |
| Boiling Point/Boiling Range | 100 °C / 212 °F | |
| Flash Point | None | |
| Evaporation Rate | Not determined | |
| Flammability (Solid, Gas) | Liquid-Not applicable | |
| Upper Flammability Limits | Not available | |
| Lower Flammability Limit | Not available | |
| Vapor Pressure | 5.65 | @ 20°C (68°F) |
| Vapor Density | Not determined | |
| Specific Gravity | 1.125 | (Water = 1) |
| Water Solubility | Completely soluble | |
| Solubility in other solvents | Not determined | |
| Partition Coefficient | Not determined | |
| Auto-ignition Temperature | Not determined | |
| Decomposition Temperature | Not determined | |
| Kinematic Viscosity | Not determined | |
| Dynamic Viscosity | Not determined | |
| Explosive Properties | Not determined | |
| Oxidizing Properties | Not determined | |
| VOC Content | None | |

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to Avoid

Exposure to air or moisture over prolonged periods.

Incompatible Materials

Bases. Oxidizers. Chlorates. Nitrates.

Hazardous Decomposition Products

Nitrogen oxidizers (NOx) and acid mists.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

| | |
|---------------------|------------------------------------------------------------------------------------------------|
| Eye Contact | May cause serious eye irritation. |
| Skin Contact | May cause mild skin irritation. |
| Inhalation | Avoid breathing vapors or mists. Exposure to decomposition products may cause a health hazard. |
| Ingestion | Do not taste or swallow. Maybe harmful if swallowed to mouth, throat and stomach. |

Component Information

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity

Not determined.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not determined.

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined.

Other Adverse Effects

Not determined.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances. Exempt under DOT 49 CFR 173.154 (d). This material is corrosive to aluminum only. Not corrosive to mild steel and skin.

| | |
|--------------------|-----------------------------------------------------------|
| <u>DOT</u> | Not regulated. |
| <u>IATA</u> | Please contact manufacturer for most current information. |
| <u>IMDG</u> | Please contact manufacturer for most current information. |

15. REGULATORY INFORMATION

International Inventories

TSCA All ingredients are listed or exempt from listing on Chemical Substance Inventory.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

US Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categories

| | |
|-----------------------------------|-----|
| Acute health hazard | Yes |
| Chronic health hazard | Yes |
| Fire hazard | No |
| Sudden release of pressure hazard | No |
| Reactive hazard | No |

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

US State Regulations

California Proposition 65

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations.

16. OTHER INFORMATION

| | | | | |
|--------------------|-----------------------------------------|---------------------------------------|--------------------------------------|------------------------------------------|
| <u>NFPA</u> | Health Hazards Not determined | Flammability Not determined | Instability Not determined | Special Hazards Not determined |
| <u>HMIS</u> | Health Hazards 1 | Flammability 0 | Physical Hazards 0 | Personal Protection N+P |

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet