

Issue Date: 06-Feb-2015

Revision Date: 03-June-2016

Version 2

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Identifier**

**Product Name** United 410 BOILER TREATMENT

**Other means of identification**

**SDS #** UNITED-410

**Recommended use of the chemical and restrictions on use**

**Recommended Use** For Steam Boilers Requiring Alkalinity Booster  
**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** Dark, brown liquid                      **Physical State** Liquid                      **Odor** Slight, vanilla-like odor

**Classification**

Acute toxicity	Category 4
Serious eye damage/eye irritation	Category 1

**Signal Word**

**Danger**

**Hazard Statements**

May be harmful if swallowed. May cause severe skin burns and eye damage.



**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. Do not eat, drink or smoke when using this product.

**Precautionary Statements – Response**

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 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 in accordance with local, state and federal rules and regulations.

**Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local, state and federal rules and regulations.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Potassium hydroxide	1310-58-3	20-40

\*\*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**

<b>General Advice</b>	Immediately call a poison center or doctor/physician.
<b>Eye Contact</b>	Flush eyes with water for 15 minutes. Lifting and lowering eyelids. Get medical attention immediately.
<b>Skin Contact</b>	Flood with large amounts of water for 15 minutes. If irritation persists, seek medical attention.
<b>Inhalation</b>	Remove to fresh air. Apply CPR if needed. If symptoms develop, seek medical attention.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting. Give water or milk immediately. Get medical attention.

**Most important symptoms and effects**

<b>Symptoms</b>	May cause severe skin burns and eye damage.
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**Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Treat symptomatically.
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### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Water spray. Alcohol-resistant foam, dry chemical and carbon dioxide.

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

This product reacts violently with strong acids, carbon oxides and Sulphur oxides, and with some organic compounds.

**Hazardous Combustion Products** When strongly heated, as in a fire, this product may produce carbon dioxide, carbon monoxide and oxides of phosphorous.

**Protective equipment and precautions for firefighters**

Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus. If possible, firefighters should control run-off water to prevent environmental contamination.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions**                      Use personal protective equipment as required. Gloves and dust mask.

**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**                      Small spills: Less than 1 gallon may be flushed to the sanitary sewer with plenty of water. Large spills: Contain the spill for proper disposal. Neutralize remaining traces with dilute inorganic acid such as hydrochloric or phosphoric acid then flush with water followed by liberal covering of sodium bicarbonate.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on Safe Handling**                      Handle in accordance with good industrial hygiene and safety practice. Provide appropriate exhaust ventilation at places where dust is formed. Keep containers tightly closed when not in use. Do not get into eyes, on skin and on clothing.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions**                      Store in a cool, well-ventilated area. Keep containers tightly closed. Store according to local, state and federal regulations.

**Incompatible Materials**                      Strong oxidizing agents. Will react with active metals (aluminum, zinc, magnesium) liberating hydrogen gas.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Potassium hydroxide 1310-58-3	Ceiling: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	-

**Appropriate engineering controls**

**Engineering Controls**                      Use appropriate engineering controls to minimize exposure to dust generated via routine use. Use adequate ventilation.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection**                      Safety goggles are recommended. If a splash factor exists: use safety goggles with a face shield.

**Skin and Body Protection**                      Chemical resistant gloves are recommended. Wear protective clothing when handling this product to prevent prolonged skin contact.

**Respiratory Protection**                      Normally not required. Avoid breathing dust or mist. Use NIOSH approved respiratory protection equipment when air borne exposure is excessive.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Facilities storing or using this material should be equipped with emergency eyewash and safety shower.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<p><b>Physical State</b>  <b>Appearance</b>  <b>Color</b></p>	<p>Liquid                  Dark, brown liquid                  Dark brown</p>	<p><b>Odor</b></p>	<p>Slight, vanilla-like odor</p>
<p><b><u>Property</u></b>                  pH                  Melting Point/Freezing Point                  Boiling Point/Boiling Range                  Flash Point                  Evaporation Rate                  Flammability (Solid, Gas)                  Upper Flammability Limits                  Lower Flammability Limit                  Vapor Pressure                  Vapor Density                  Specific Gravity                  Water Solubility                  Solubility in other solvents                  Partition Coefficient                  Auto-ignition Temperature                  Decomposition Temperature                  Kinematic Viscosity                  Dynamic Viscosity                  Explosive Properties                  Oxidizing Properties                  VOC Content</p>	<p><b><u>Values</u></b>                  12.5-13.5                  Not determined                  100 °C / 212 °F                  None                  ~1.00                  Not determined                  Not determined                  Not determined                  Not determined                  Not determined                  Not determined                  1.16                  Completely miscible                  Not determined                  Not determined                  400°C for dust                  Not determined                  Not determined                  Not determined                  Not determined                  Not determined                  None</p>	<p><b><u>Remarks • Method</u></b></p>	<p>(Water = 1)</p>

**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**

Incompatible Materials. This product, in certain circumstances, for flammable dust clouds in air.

**Incompatible Materials**

Strong oxidizing agents. Will react with active metals (aluminum, zinc and magnesium) liberating hydrogen gas.

**Hazardous Decomposition Products**

When heated strongly, as in a fire, this product may produce carbon dioxide, carbon monoxide, and oxides of phosphorus.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information**

<b>Eye Contact</b>	May cause severe eye damage.
<b>Skin Contact</b>	May cause severe skin burns.
<b>Inhalation</b>	Do not inhale.
<b>Ingestion</b>	Do not ingest.

**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**

<b>Disposal of Wastes</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated Packaging</b>	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.

**DOT**  
**UN/ID No.** UN1814  
**Proper Shipping Name** Potassium hydroxide, solution  
**Hazard Class** 8  
**Packing Group** II

**IATA** Not classified.

**IMDG**

**UN/ID No.** UN1814  
**Proper Shipping Name** Potassium hydroxide, solution  
**Hazard Class** 8  
**Packing Group** II

**15. REGULATORY INFORMATION**

**International Inventories**

**Legend:**

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

*DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List. Listed*

**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 302/304 Extremely Hazardous Substance/Emergency Release Notification**

None.

**SARA 311/312 Hazardous Categories**

None.

**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.

**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	<b>Health Hazards</b> Not determined	<b>Flammability</b> Not determined	<b>Instability</b> Not determined	<b>Special Hazards</b> Not determined
<b><u>HMIS</u></b>	<b>Health Hazards</b> 2	<b>Flammability</b> 0	<b>Physical Hazards</b> 0	<b>Personal Protection</b> n & p

**Issue Date:** 06-Feb-2015  
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**Revision Note:** New format

**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**