Boiler

UNITED

LABORATORIES

United 413

Boiler Alkalinity Adjunct

KEEP OUT OF REACH OF CHILDREN.

DANGER–POISON

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

PRECAUCION AL USARIO:
Si usted no puede leer Ingles, pregunte a alguien que le traduzca esta etiqueta para usted antes de uso.

Manufactured and Sold Exclusively By:
UNITED LABORATORIES, INC.
320 37th Avenue • St. Charles, IL 60174
1-800-323-2594 • www.unitedlabsinc.com

DIRECTIONS:

BOILER ADJUNCT — Add enough **United 413** along with your normal steam boiler treatment program to maintain the total alkalinity in the range 500-700 ppm. See your United Laboratories Representative for exact use rates and compatability with other United Laboratories boiler treatment products.

ALKALINE BOILOUT — Add 4-6 gallons of **United 413** for every 100 gallons of boiler capacity. Fill the boiler to its normal operating water line and bring to a boil for at least 30 minutes. Flush thoroughly before returning to normal service and normal chemical treatment program.

Always rinse empty container with water to remove all chemical before discarding. Never transfer contents to unmarked package. Store out of reach of unauthorized personnel.

An MSDS for this product is available through United's website, www.unitedlabsinc.com, providing 24 hour access. Please read the MSDS carefully and follow all directions when using or handling this product. Never reuse empty containers. Incompatible materials may adversely react.

HMIS® III CODE: 0=MINIMAL 1=SLIGHT 2=MODERATE 3=SERIOUS 4=SEVERE	HEALTH	3
	FLAMMABILITY	0
	PHYSICAL HAZARD	2
PERSONAL PROTECTION INDEX: Gloves and Goggles	PERSONAL PROTECTION	n&p

DANGER – POISON

AVOID BREATHING ANY FUMES, IF THEY OCCUR. CHEMICAL CAUSES SEVERE BURNS. KEEP OUT OF REACH OF CHILDREN. STORE IN A SAFE PLACE.

DANGER:

Contains Potassium Hydroxide (CAS# 1310-58-3). May be fatal if ingested. Wear skin and eye protection when using. Causes severe burns on contact with eyes or skin. Harmful to shoes and clothing.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: Immediately flush with large amounts of water for at least 15 minutes holding lids apart to ensure flushing of the entire surface. Get medical attention immediately.

SKIN: Immediately wash contaminated areas with plenty of water for 15 minutes. Remove contaminated clothing and footwear and wash clothing before reuse. Get medical attention immediately.

INHALATION: Remove to fresh air; if breathing is difficult, have a trained person administer oxygen. If respiration stops, give CPR. Get medical attention.

IF SWALLOWED: DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person. Give large quantities of water. If available give several glasses of milk. Get medical attention immediately.

Printed in U.S.A. 1104

Safety Data Sheet

Issue Date: 06-Feb-2015 **Revision Date:** 26-Apr-2016 **Version** 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name United 413 Boiler Alkalinity Adjunct

Other means of identification

SDS # UNITED-413

UN/ID No UN1814

Recommended use of the chemical and restrictions on use

Recommended Use Boiler Alkalinity Adjunct

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 Clear liquid **Physical State** Liquid **Odor** No odor

Classification

Skin corrosion/irritation	Category 1
Acute toxicity	Category 4

Signal Word

Danger

Hazard Statements

Causes skin burns and eye burns. Can cause damage to the eyes including blindness.



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 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. Call a poison center immediately.

Precautionary Statements - Storage
Store according to local, state and national rules and regulations.

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Potassium hydroxide	1310-58-3	40-70

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 Immediately flush eyes with water. Flush eyes with water for minimum of 15 minutes, occasionally lifting and lowering upper lids. Get medical attention promptly.

Skin Contact Immediately flush skin with plenty of water. Remove clothing. Get medical attention immediately. Wash contaminated clothing separately and clean shoes before reuse.

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Rescuers should put on appropriate protective gear. Immediately call a poison center or doctor/physician.

Ingestion Drink large quantities of water if accidently ingested. Never give anything by mouth to an unconscious person. Do not induce vomiting. Get medical attention immediately.

Most important symptoms and effects

Symptoms Causes severe skin burns and eye damage.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Water spray. Foam. Carbon dioxide (CO2) and Dry chemical.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical
This product reacts violently with strong acids and with some organic compounds.

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

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. Do not use water. Water spray to cool containers or protect personnel. Use with caution.

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. Avoid runoff into storm sewers and ditches which lead to waterways.

Methods for Clean-Up Small spills: Neutralize with diluted inorganic acid, then flush with water followed by liberal covering of sodium bicarbonate. 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. Do not handle until all safety precautions have been read and understood.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store in cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Keep away from heat, sparks, and flame. Store away from incompatible materials. Do not get into eyes, on skin, and on clothing.

Incompatible Materials Avoid contact with copper, organic materials, reactive metals such as aluminum and magnesium, and all acids and oxidizers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

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

Appropriate engineering controls

Engineering Controls Provide adequate ventilation and local exhaust is generally adequate.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Chemical safety goggles are recommended. If a splash factor exists; use safety goggles with a face shield. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin and Body Protection Chemical resistant gloves are recommended. Impervious clothing and chemical resistant safety shoes.

Respiratory Protection Avoid breathing fumes from this product. IF TLV is exceeded, use a NIOSH/MSHA approved self-contained breathing apparatus respirator.

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		
Appearance	Clear liquid	**Odor**	No odor
Color	Clear		

Property	**Values**	**Remarks • Method**
pH	13-14	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	133 °C / 271 °F	
Flash Point	>200	
Evaporation Rate	~1	
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	6.4@77°F/25°C	
Vapor Density	Not determined	
Specific Gravity	1.45	(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
Incompatible Materials.

Incompatible Materials
Avoid contact with copper, organic materials, reactive metals such as aluminum and magnesium, and all acids and oxidizers.

Hazardous Decomposition Products
Contact with some reactive metals can generate explosive hydrogen gas.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	Corrosive. Causes eye damage. Destructive to eye tissues on contact. Contact can cause possible blindness.
Skin Contact	Corrosive. Causes skin burns. Prolonged and repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).
Inhalation	Do not inhale. Can cause burns and tissue damage to the upper respiratory tract. Prolonged exposure to large concentrations can cause possible loss of consciousness and/or severe lung damage.
Ingestion	Do not ingest. Corrosive and may cause severe and permanent damage to mouth, throat, and stomach.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Potassium hydroxide 1310-58-3	214	-	-

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 local, regional and national laws and

regulations.

Contaminated Packaging Disposal should be in accordance with applicable local, regional and national laws and regulations. See Section 8 of this SDS for more information.

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

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

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*

EINECS/ELINCS *- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

ENCS *- Japan Existing and New Chemical Substances*

IECSC *- China Inventory of Existing Chemical Substances*

KECL *- Korean Existing and Evaluated Chemical Substances*

PICCS *- Philippines Inventory of Chemicals and Chemical Substances*

AICS *- Australian Inventory of Chemical Substances*

US Federal Regulations

CERCLA

This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories. None.

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.

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

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	Not determined	Not determined	Not determined	Not determined
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**	**Personal Protection**
	3	0	2	n&p

Issue Date: 06-Feb-2015
Revision Date: 26-Apr-2016
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