Boiler

Safety Data Sheet

Issue Date: 10-Feb-2016 **Revision Date:** 12-Sept-2023 **Version 2**

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier
Product Name United 418 Liquid Oxygen Scavenger

Other means of identification
SDS # UNITED-418

Recommended use of the chemical and restrictions on use
Recommended Use Controls oxygen pitting in low and high pressure steam boilers.
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, pale amber to water, water white liquid **Physical State** Liquid **Odor** No odor

Classification

Serious eye damage/eye irritation	Category 1

Signal Word
Danger

Hazard Statements
Causes serious eye damage.



Precautionary Statements - Prevention
Wear protective gloves/protective clothing/eye protection/face protection.

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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Proprietary	Proprietary	7-13
Proprietary	Proprietary	5-10
Proprietary	Proprietary	<5

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

Eye Contact 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.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes.

Inhalation Remove to fresh air.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects

Symptoms Causes serious 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, dry foam, carbon dioxide.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical
In the presence of fire, this product may produce sulfur dioxide. May react with active metals (aluminum, zinc and magnesium) liberating hydrogen gas.

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

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 Small spills: Soak up with an inert absorbent and place in designated disposal container. Large spills: Spills should be contained and soaked up with an inert absorbent and place in designated disposal container to await proper treatment or disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Wear protective gloves/protective clothing and eye/face protection.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed when not in use. Store away from heat, open flames and incompatible materials. Store in cool, dry, ventilated area. Keep from freezing. Keep out of reach of children.

Incompatible Materials Strong acids. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Proprietary	TWA: 5 mg/m^3	(vacated) TWA: 5 mg/m^3	TWA: 5 mg/m^3
Proprietary	TWA: 0.5 mg/m^3 Mo respirable fraction	TWA: 5 mg/m^3 Mo (vacated) TWA: 5 mg/m^3 Mo	IDLH: 1000 mg/m^3 Mo

Appropriate engineering controls

Engineering Controls Provide adequate ventilation and local exhaust is generally adequate. Eyewash stations. Showers.

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.

Skin and Body Protection Chemical resistant gloves are recommended. Long shirt sleeves are recommended.

Respiratory Protection IF TLV is exceeded, use a NIOSH/MSHA approved 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, pale amber to water, water white liquid	**Odor**	No odor
Color	Pale amber to water white		

Property	Values	Remarks • Method

pH	6-8	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	100 °C / 212 °F	
Flash Point	None	
Evaporation Rate	~1	
Flammability (Solid, Gas)	Liquid-Not applicable	
Upper Flammability Limits	N/A	
Lower Flammability Limit	N/A	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	1.185	(Water = 1)
Water Solubility	Miscible in water	
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
Strong acids. Strong oxidizing agents.

Hazardous Decomposition Products
When heated strongly, as in a fire, may release carbon dioxide, carbon monoxide and sulfur dioxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	Causes serious eye damage.
Skin Contact	Avoid contact with skin.
Inhalation	Do not inhale.
Ingestion	Do not ingest.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Proprietary	= 820 mg/kg (Rat)	-	> 22 mg/L (Rat) 1 h

Proprietary	= 1310 mg/kg (Rat)	> 2 g/kg (Rat)	-
Proprietary	= 4 g/kg (Rat) = 4000 mg/kg (Rat)	-	> 2080 mg/m³ (Rat) 4 h

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 Group 3 IARC components are "not classifiable as human carcinogens".

Chemical Name	ACGIH	IARC	NTP	OSHA
Proprietary		Group 3		
Proprietary		Group 3		
Proprietary	A3			

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 3 IARC components are "not classifiable as human carcinogens"

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.

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status

Proprietary	Toxic

14. TRANSPORT INFORMATION

DOT Not regulated.

IATA Available upon request.

IMDG Available upon request.

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Proprietary	Present	X		Present		Present	X	Present	X	X
Proprietary	Present	X		Present		Present	X	Present	X	X
Proprietary	Present	X		Present		Present	X	Present	X	X

Legend:

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

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

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 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.

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Proprietary	X	X	X

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**
	2	0	0	N + P

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Revision Note: Date change only

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