

## 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

<b>Eye Contact</b>	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.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes.
<b>Inhalation</b>	Remove to fresh air.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water.

#### Most important symptoms and effects

<b>Symptoms</b>	Causes serious 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, 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 <sup>3</sup>	(vacated) TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>
Proprietary	TWA: 0.5 mg/m <sup>3</sup> Mo respirable fraction	TWA: 5 mg/m <sup>3</sup> Mo (vacated) TWA: 5 mg/m <sup>3</sup> Mo	IDLH: 1000 mg/m <sup>3</sup> 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

<b>Boiling Point/Boiling Range</b>	100 °C / 212 °F	
<b>Flash Point</b>	None	
<b>Evaporation Rate</b>	~1	
<b>Flammability (Solid, Gas)</b>	Liquid-Not applicable	
<b>Upper Flammability Limits</b>	N/A	
<b>Lower Flammability Limit</b>	N/A	
<b>Vapor Pressure</b>	Not determined	
<b>Vapor Density</b>	Not determined	
<b>Specific Gravity</b>	1.185	(Water = 1)
<b>Water Solubility</b>	Miscible in water	
<b>Solubility in other solvents</b>	Not determined	
<b>Partition Coefficient</b>	Not determined	
<b>Auto-ignition Temperature</b>	Not determined	
<b>Decomposition Temperature</b>	Not determined	
<b>Kinematic Viscosity</b>	Not determined	
<b>Dynamic Viscosity</b>	Not determined	
<b>Explosive Properties</b>	Not determined	
<b>Oxidizing Properties</b>	Not determined	
<b>VOC Content</b>	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/m <sup>3</sup> (Rat) 4 h
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**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

<b><u>DOT</u></b>	Not regulated.
<b><u>IATA</u></b>	Available upon request.
<b><u>IMDG</u></b>	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****HMIS**

Not determined

Not determined

Not determined

Not determined

**Health Hazards****Flammability****Physical Hazards****Personal Protection**

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N + P

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**Revision Date:** 10-Feb-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**