



# Safety Data Sheet

Issue Date: 08-Feb-2015

Revision Date: 07-Jan-2016

Version 2

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product Identifier

**Product Name** United 323 Closed Loop Chiller System Treatment

### Other means of identification

**SDS #** UNITED-323

**UN/ID No** UN3093

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

**Recommended Use** Closed Loop Chiller System Treatment.

**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** Brown liquid

**Physical State** Liquid

**Odor** Slight, medicinal odor

### Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1B
Oxidizing Liquids	Category 2

### Signal Word

**Danger**

### Hazard Statements

Harmful if swallowed. Fatal if inhaled. Causes severe skin burns and eye damage. May cause cancer. May intensify fire; oxidizer.

**Precautionary Statements - Prevention**

Obtain special instructions before use. . Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. — No smoking

**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: Call a poison center or doctor/physician if you feel unwell. Rinse mouth. Do not induce vomiting. In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction.

**Precautionary Statements - Storage**

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant.

**Other Hazards**

Toxic to aquatic life with long lasting effects.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Sodium Nitrite	7632-00-0	1-10
Sodium Molybdate	7631-95-0	1-10

\*\*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>	Immediately flush with plenty of water for at least 15 minutes while holding eyelids open. Immediately call a poison center or doctor/physician.
<b>Skin Contact</b>	Wash with soap and water. If irritation persists, call a physician or poison control center.
<b>Inhalation</b>	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.
<b>Ingestion</b>	Call a poison center or doctor/physician if you feel unwell. Rinse mouth. Do not induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person.

**Most important symptoms and effects**

<b>Symptoms</b>	Harmful if swallowed. Fatal if inhaled. Causes severe skin burns and eye damage. May cause cancer.
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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. Foam. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable Extinguishing Media** No information available.

**Specific Hazards Arising from the Chemical**

This product is a water solution of sodium nitrite, a strong oxidizer. Residue left after product evaporation may give off nitrogen oxide fumes or may cause other materials to spontaneously ignite or burn more vigorously than normal.

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

**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**

<b>Personal Precautions</b>	Use personal protective equipment as required.
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<b>Environmental Precautions</b>	See Section 12 for additional Ecological Information.
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**Methods and material for containment and cleaning up**

<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
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<b>Methods for Clean-Up</b>	Eliminate all sources of ignition. Clean up with a non-flammable absorbent such as clay or vermiculite and place in a labeled, closed metal container for proper disposal.
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**7. HANDLING AND STORAGE****Precautions for safe handling**

<b>Advice on Safe Handling</b>	Handle in accordance with good industrial hygiene and safety practice. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wear respiratory protection.
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**Conditions for safe storage, including any incompatibilities**

<b>Storage Conditions</b>	Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep away from flammables. Store away from incompatible materials.
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<b>Incompatible Materials</b>	Ammonia. Amines. Sulfites. Oxygen scavengers.
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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium Molybdate 7631-95-0	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.

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

- Eye/Face Protection** Chemical safety goggles are recommended.
- Skin and Body Protection** Chemical resistant gloves are recommended. Long sleeve shirt and long pants.
- Respiratory Protection** Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment.

**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**

<b>Physical State</b>	Liquid	<b>Odor</b>	Slight, medicinal odor
<b>Appearance</b>	Brown liquid		
<b>Color</b>	Brown		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
pH	11.5-12.5		
Melting Point/Freezing Point	No information available.		
Boiling Point/Boiling Range	100 °C / 212 °F		
Flash Point	None		
Evaporation Rate	~1.0		
Flammability (Solid, Gas)	Liquid-Not applicable		
Upper Flammability Limits	No information available.		
Lower Flammability Limit	No information available.		
Vapor Pressure	No information available.		
Vapor Density	No information available.		
Specific Gravity	1.065	(Water = 1)	
Water Solubility	Completely soluble		
Solubility in other solvents	No information available.		
Partition Coefficient	No information available.		
Auto-ignition Temperature	No information available.		
Decomposition Temperature	No information available.		
Kinematic Viscosity	No information available.		
Dynamic Viscosity	No information available.		
Explosive Properties	No information available.		
Oxidizing Properties	No information available.		
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**

Ammonia. Amines. Sulfites. Oxygen scavengers.

**Hazardous Decomposition Products**

When strongly heated, as in a fire, this product produces carbon dioxide, carbon monoxide and oxides of nitrogen.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

**Eye Contact** Causes severe eye damage.

**Skin Contact** Causes severe skin burns.

**Inhalation** Fatal if inhaled.

**Ingestion** Harmful if swallowed.

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Nitrite 7632-00-0	85 mg/kg (Rat)	-	5.5 mg/L (Rat) 4 h
Sodium Molybdate 7631-95-0	4 g/kg (Rat) 4000 mg/kg (Rat)	-	> 2080 mg/m <sup>3</sup> (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** May cause cancer.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium Nitrite 7632-00-0		Group 2A		X
Sodium Molybdate 7631-95-0	A3			

**Legend**

**ACGIH (American Conference of Governmental Industrial Hygienists)**

A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**

Group 2A - Probably Carcinogenic to Humans

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Numerical measures of toxicity**

No information available.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

No information available.

**Persistence/Degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

No information available.

**Other Adverse Effects**

No information available.

**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
Sodium Nitrite 7632-00-0	Toxic Ignitable Reactive
Sodium Molybdate 7631-95-0	Toxic

**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** UN3093  
**Proper Shipping Name** Corrosive liquid, oxidizing, n.o.s. (Sodium nitrite, potassium hydroxide)  
**Hazard Class** 8 (5.1)  
**Packing Group** II

**IATA**

**UN/ID No** UN3093  
**Proper Shipping Name** Corrosive liquid, oxidizing, n.o.s. (Sodium nitrite, potassium hydroxide)  
**Hazard Class** 8 (5.1)  
**Packing Group** II

**IMDG**

**UN/ID No** UN3093  
**Proper Shipping Name** Corrosive liquid, oxidizing, n.o.s. (Sodium nitrite, potassium hydroxide)  
**Hazard Class** 8 (5.1)  
**Packing Group** II

**Marine Pollutant**

This material may meet the definition of a marine pollutant

**15. REGULATORY INFORMATION****International Inventories**

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Sodium Nitrite	Present	X		Present		Present	X	Present	X	X
Sodium Molybdate	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****SARA 313**

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Sodium Nitrite - 7632-00-0	7632-00-0	6.5	1.0

**US State Regulations****U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sodium Nitrite 7632-00-0	X	X	X

**16. OTHER INFORMATION****NFPA****Health Hazards**

No information available

**Flammability**

No information available

**Instability**

No information available

**Special Hazards**

No information available

**HMIS****Health Hazards**

2

**Flammability**

0

**Physical Hazards**

0

**Personal Protection**

N+P

**Issue Date:**

08-Feb-2015

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07-Jan-2016

**Revision Note:**

Revised

**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**