



Safety Data Sheet

Issue Date: 04-Sept-2014

Revision Date: 07-Jan-2016

Version 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name United 320 Hot Water Boiler Treatment

Other means of identification

SDS # UNITED-320

UN/ID No UN3093

Recommended use of the chemical and restrictions on use

Recommended Use Hot water boiler 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.

Most important symptoms and effects

Symptoms	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

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water. Foam. Carbon dioxide (CO₂).

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

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

Methods for Containment	Prevent further leakage or spillage if safe to do so.
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Methods for Clean-Up	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

Advice on Safe Handling	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

Storage Conditions	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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Incompatible Materials	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 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.

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

Physical State	Liquid	Odor	Slight, medicinal odor
Appearance	Brown liquid		
Color	Brown		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
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 ³ (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

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04-Sep-2014

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07-Sep-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