



MATERIAL SAFETY DATA SHEET

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To Reorder Call:
800-323-2594

1. PRODUCT AND COMPANY IDENTIFICATION

FOR MEDICAL AND TRANSPORTATION EMERGENCIES
 24 Hour INFOTRAC (US and CANADA): **800-535-5053**

PRODUCT NAME
UNITED 320

USE/DESCRIPTION
Hot Water Boiler Treatment

REVISION DATE
July 18, 2011

HMIS III HEALTH (0 = Maximum Safety) 2

Always follow Label Directions and Cautions.

* Chronic	2 Moderate
4 Severe	1 Slight
3 Serious	0 Minimal

See Hazards Identification Section of this MSDS for more detailed information.

PHYSICAL HAZARD (0 = Maximum Safety) 0

Susceptible to Release of Energy.

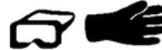
4 May detonate-vacate area if materials are exposed to fire.	2 Violent chemical change possible-use hose stream from distance
3 Strong shock of heat may detonate-use monitors from behind explosion resistant barriers.	1 Unstable if heated-use precaution.
	0 Normally stable.

FLAMMABILITY (0 = Maximum Safety) 0

Susceptibility of Material to Burning.

4 Extremely flammable.	1 Must be preheated
3 Ignites at normal temperature.	to burn.
2 Ignites when moderately heated.	0 Will not burn.

PERSONAL PROTECTION: n & p



2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	CAS#	%Range	ACGIH (TLV-TWA)	OSHA (PEL-TWA)	LD50 (Species/Route)	LC50 (Species)
Sodium nitrite	7632-00-0	3-7	NE	NE	85 mg/kg (Rat/oral)	NE
Sodium molybdate	10102-40-6	1-5	NE	0.5 mg/m3	NE	NE

3. HAZARDS IDENTIFICATION

Eyes: Can cause irritation and burns.

Skin: Can cause irritation and burns.

Inhalation: May be harmful if inhaled. May cause respiratory irritation. May cause systemic effects.

Ingestion: Toxic by ingestion. May cause nausea, vomiting, convulsions and decreased blood pressure.

4. FIRST AID MEASURES

Eyes: Immediately flush with plenty of water for at least 15 minutes while holding eyelids open. Call a physician immediately.

Skin: Wash with soap and water. If irritation persists, call a physician.

Inhalation: Remove to fresh air. Apply CPR as necessary and call a physician immediately.

If Swallowed: If conscious, give large amounts of water then induce vomiting by touching back of throat with finger. Keep head below hips to prevent aspiration of liquid into lungs. Call a physician immediately.

5. FIRE FIGHTING MEASURES

Flash Point (TCC): None

Explosive Limits: Lower (LEL): ND Upper (UEL): ND

Flame Projection (Aerosol): N/A

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

Fire and Explosion Hazards: 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.

Extinguishing Media: Water, Dry foam, Carbon dioxide.

Fire Fighting Instructions: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus. This product, if allowed to dry, may increase flammability of other materials.

6. ACCIDENTAL RELEASE MEASURES

Small Spills: Eliminate all sources of ignition. Clean up with a non-flammable sorbent such as clay or vermiculite and place in a labeled, closed metal container for proper disposal.

Large Spills: Eliminate all sources of ignition. For larger quantities, dike spill and collect with a non-flammable sorbent such as clay or vermiculite and place in a labeled, closed metal container for proper disposal. Avoid direct discharge to sewers and surface waters.

7. HANDLING AND STORAGE

Keep away from flammable materials. Keep container tightly closed when not in use. Store in a cool, well-ventilated area away from incompatible material. Wash hands and face with soap and water after handling this product. Remove contaminated clothing immediately and rinse with water. Launder thoroughly before reusing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Chemical safety goggles recommended.

Skin: Chemical resistant gloves or Nitrile rubber gloves recommended.

Respiratory: None required if good ventilation is maintained. If TLV is exceeded, use a NIOSH/MSHA approved respirator.

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

Other Protective Clothing or Equipment: Shirts with long sleeves, rubber boots for cleaning up spills.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 212°F/100°C **Specific Gravity:** 1.065 (H₂O=1) **Vapor Pressure:** ND **Melting Point:** ND
Vapor Density: ND **Evaporation Rate:** ~1.00 **Solubility in Water:** Complete **pH:** 11.5-12.5
Appearance and Odor: Brown liquid with very slight medicinal odor.

10. STABILITY AND REACTIVITY

Hazardous Polymerization: Will not occur.

Hazardous Decomposition: Carbon monoxide, carbon dioxide and Nitrogen oxide gas is given off at high temperatures (as in a fire).

Chemical Stability: Stable

Incompatibility: Never mix this product with ammonia or any amine. This can form nitrosamines, which have been shown to cause cancer in laboratory animals. This product should not be added to any system containing residual chemical from sulfite or other oxygen-scavenging treatment program.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity (NTP/IARC/OSHA): None

California Proposition 65: Does this product contain chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm? None

12. ECOLOGICAL INFORMATION

ND

13. DISPOSAL CONSIDERATIONS

Consult your local, state, provincial, and federal regulations for proper disposal guidelines. Disposal regulations may be different for each state and/or locality.

14. TRANSPORT INFORMATION

DOT: Available upon request

TDG: Available upon request

UN: Available upon request

15. REGULATORY INFORMATION

VOC (Volatile Organic Compounds): None

TSCA (Toxic Substances Control Act): Listed

SARA Title III Section 302 EHS: ND

SARA Title III Section 311/312: ND

SARA Title III Section 313 Toxic Chemicals: Sodium nitrite CAS#7632-00-0 0.577 pounds of reportable material per gallon of United product.

WHMIS Classification:

This product has been classified in accordance with the hazard criteria of the CPR (Controlled Products Regulations/ WHMIS) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

Read and follow all label directions and precautions before using this product. These products are intended for industrial and institutional use only. NOT FOR HOUSEHOLD USE OR RESALE. KEEP OUT OF REACH OF CHILDREN.

UNITED 320 Hot Water Boiler Treatment

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