

Material Safety Data Sheet

Hazard Rating:	NFPA	CODE TRANSLATION
Health:	1	0 = Minimal Hazard
Flammability:	2	1 = Slight Hazard
Reactivity:	0	2 = Moderate Hazard
Special:		3 = Severe Hazard
		4 = Extreme Hazard

FORMULA 2240

SECTION I: IDENTIFICATION

Effective Date: 6/01/87

Name and Address:

BUFFALO INDUSTRIAL CHEMICALS, INC.
P.O. BOX 664
NORTH TONAWANDA, NY 14120

Revised: 5/24/07

Phone: (716) 696-6400

Emergency Phone: CHEMTREC (800) 424-9300

Outside USA: CHEMTREC COLLECT (703) 527-3887

Chemical Name: NOT APPLICABLE

Synonyms: N.A.

D.O.T. Shipping Name: COMBUSTIBLE LIQUID, N.O.S. (CONTAINS DIETHYLHYDROXYLAMINE)

D.O.T. COMBUSTIBLE MATERIAL ID NO.: UN-1993

Formula: SEE SECTION II

Chemical Family: BOILER WATER TREATMENT

Packing Group: PG-III

SECTION II: INGREDIENTS

A. Hazardous Ingredients	CAS NO.	%	TLV
HYDROQUINONE	123-31-9	<2.0	TWA: 2mg/m ³
ETHANAMINE, N-ETHYL-N-HYDROXY	3710-84-7	<30.0	OSHA, COMBUSTIBLE IRRITANT
B. Other Ingredients		%*	TLV
WATER		BAL.	NONE ESTAB.

*Legend: L=<1%; M=1-10%; H=>10%

SECTION III: PHYSICAL PROPERTIES

Boiling Point: >212°F

Percent Volatile (volume): 100

Vapor Pressure (mm Hg): <30 (as amines)

Vapor Density (air=1): 3-4 (as amines)

Appearance and Odor: COLORLESS TO PALE YELLOW LIQUID WITH TYPICAL AMMONICAL ODOR

Specific Gravity: 0.990-0.998

pH (10% solution): 8.80±0.4

Solubility in Water: COMPLETE

Evaporation Rate (water=1): ~1.0

SECTION IV: FIRE AND EXPLOSION HAZARD DATA

Flash Point (method used): >141°F (as solution) TAG CLOSED CUP

Flammable Limits in Air, LOWER: NA

UPPER: NA

Extinguishing Media: WATER SPRAY, WATER FOG, CO₂, DRY CHEMICAL OR FOAM.

Special Fire Fighting Procedures: FIREFIGHTERS SHOULD WEAR NORMAL PROTECTIVE EQUIPMENT. FULL PROTECTIVE GEAR WITH SELF-CONTAINED BREATHING APPARATUS IS RECOMMENDED FOR CONFINED AREAS.

Unusual Fire or Explosion Hazards: NONE KNOWN

Material Safety Data Sheet

FORMULA 2240

SECTION V: HEALTH HAZARD DATA

- A. TLV and Source: NONE DETERMINED FOR PRODUCT. SEE SECTION II. (CALCULATED >100 ppm. BASIS ACGIH (1987) AND OSHA, HYDROQUINONE 2 mg/m³)
- B. Effects of a Single Overexposure by:
1. Ingestion: MODERATELY TOXIC BY INGESTION. MAY CAUSE NAUSEA, VOMITING, ABDOMINAL PAIN AND COLLAPSE.
 2. Inhalation: PROLONGED INHALATION OF MIST MAY BE IRRITATING TO THE UPPER RESPIRATORY TRACT.
 3. Skin Contact: PROLONGED OR FREQUENT CONTACT MAY CAUSE IRRITATION.
 4. Eye Contact: LIQUID PRODUCT CAUSES IRRITATION.
- C. Effects of Repeated Overexposures: OTHER THAN SHORT TERM EFFECTS, NONE KNOWN.
- D. Emergency and First Aid Procedures for:
1. Ingestion: IF CONSCIOUS DRINK CITRUS JUICE OR SEVERAL GLASSES OF WATER. DO NOT INDUCE VOMITING NOR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET IMMEDIATE MEDICAL ATTENTION.
 2. Inhalation: REMOVE VICTIM TO FRESH AIR AND TREAT SYMPTOMS. GET MEDICAL ATTENTION IF SYMPTOMS PERSIST.
 3. Skin Contact: WASH WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING AND LAUNDRY BEFORE REUSE. DISCARD CONTAMINATED SHOES. GET MEDICAL ATTENTION IF SEVERE REDNESS OR BURNS ARE CAUSED.
 4. Eye Contact: IMMEDIATELY FLUSH WITH CLEAR WATER FOR 15 MINUTES AND IF IRRITATION PERSISTS, GET MEDICAL ATTENTION.
- E. Other Health Information: NONE KNOWN

SECTION VI: PERSONNEL PROTECTION DATA

Respiratory Protection: NOT NORMALLY REQUIRED UNLESS USED IN CONFINED AREAS.
Ventilation: NORMAL VENTILATION SATISFACTORY. MECHANICAL MAY BE REQUIRED IN CONFINED AREAS.

Protective Gloves: SYN RUBBER OR NEOPRENE
Eye Protection: CHEMICAL GOGGLES

Other Protective Equipment: EYEWASH STATION AND SAFETY SHOWER IN AREA OF USE.

SECTION VII: REACTIVITY DATA

- A. Product Stability: STABLE
Conditions to Avoid: EXTREME HEAT
- B. Incompatibility: STRONG OXIDIZING AGENTS
- C. Hazardous Combustion or Decomposition Products: OXIDES OF CARBON AND NITROGEN WILL BE RELEASED IF WATER IS EVAPORATED BY THE HEAT OF A FIRE AND THE MATERIAL IS BURNED.

Material Safety Data Sheet

FORMULA 2240

- D. Hazardous Polymerization: WILL NOT OCCUR
Conditions to Avoid: NONE KNOWN

SECTION VIII: ENVIRONMENTAL DATA

- A. Spill or Leak Procedures: SMALL SPILLS MAY BE FLUSHED WITH COPIOUS QUANTITIES OF WATER, PREFERABLY TO A SANITARY SEWER OR WASTE TREATMENT FACILITY. LARGER SPILLS SHOULD BE DIKED TO PREVENT RUNOFF AND THEN ABSORBED IN SAND OR OTHER INERT ABSORBENT FOR DISPOSAL.
- B. Waste Disposal: SMALL QUANTITIES MAY BE DILUTED WITH WATER AND FLUSHED TO A SANITARY SEWER. THE PREFERRED METHOD FOR LARGER QUANTITIES IS INCINERATION. OBEY ALL FEDERAL, STATE OR LOCAL REGULATIONS.
- C. Other Environmental Data: THIS PRODUCT MAY BE TOXIC TO FISH. SPILLS OR WASTE MATERIAL MUST NOT ENTER NATURAL WATERWAYS.

SECTION IX: SPECIAL PRECAUTIONS

- A. Handling and Storage: STORE IN A COOL DRY PLACE. KEEP CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE.
- B. Other Precautions: THIS PRODUCT HAS BEEN DESIGNED FOR USE IN SPECIFIC TYPES OF BOILER WATER SYSTEMS AND SHOULD BE USED ONLY IN ACCORDANCE WITH THE INSTRUCTIONS PROVIDED BY THE TECHNICAL REPRESENTATIVE SERVICING THE FACILITY. THE PRODUCT IS NOT FDA APPROVED FOR USE IN BOILERS WHERE STEAM CAN CONTACT FOOD OR EDIBLE PRODUCTS.

The data contained in this Material Safety Data Sheet has been prepared based upon an evaluation of the ingredients contained in the product, their concentration in the product and potential interactions. The information is offered in good faith and is believed to be accurate. It is furnished to the customer who is urged to study it carefully to become aware of hazards, if any, in the storage, handling, use and disposal of the product; and to insure his employees are properly informed and advised of all safety precautions required. The information is furnished to comply with the "Occupational Safety and Health Act" (OSHA) hazard communication regulation [Rule 29 CFR 1910.1220 (g) (2)]. Use or dissemination of all or part of this information for any other purpose is not permitted.