

# Safety Data Sheet

**FORMULA 2240**

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## 1. IDENTIFICATION

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**Product Name:** FORMULA 2240 **Revised:** 12/7/15  
**Chemical Name:** Not Applicable  
**Description:** Clear, pale yellow liquid with characteristic odor.  
**Recommended Use:** Boiler Water Treatment  
**Restrictions on Use:** For industrial use only. Not for use in treating drinking water or where steam can contact food or other edible products.

### COMPANY IDENTIFICATION

B & L CONTROL SERVICE, INC.  
1448 SARATOGA ROAD  
BALLSTON SPA, NY 12020

**PHONE NUMBER:** (518) 273-0500

### EMERGENCY PHONE NUMBERS

CHEMTREC (800) 424-9300  
Outside USA: CHEMTREC COLLECT (703) 527-3887

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## 2. HAZARD(S) IDENTIFICATION

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### GHS Classification:

Flammable liquids - Category 3  
Serious eye damage/irritation - Category 2A  
Skin corrosion/irritation - Category 2  
Specific target organ toxicity, single exposure; respiratory tract irritation - Category 3  
Sensitization, skin - Category 1  
Germ cell mutagenicity - Category 2  
Carcinogenicity - Category 2  
Hazardous to the aquatic environment, acute hazard - Category 3

**Signal Word:** Warning

**Symbol(s):**



### Hazard Statements:

Flammable liquid and vapour  
Causes serious eye irritation  
Causes skin irritation  
May cause respiratory irritation  
May cause an allergic skin reaction  
Suspected of causing genetic defects  
Suspected of causing cancer  
Harmful to aquatic life

### Precautionary Statements:

Prevention  
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from sparks and open flames. No smoking. Keep container tightly closed. Ground or bond container and receiving equipment. Use explosion-proof electrical / ventilating / lighting / equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dusts or mists. Wash hands, forearms, gloves and contaminated surfaces thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/eye protection/face protection.

Response

In case of fire: Use Water spray or fog, foam, dry chemical or carbon dioxide to extinguish.  
 IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CONTROL CENTER or doctor for treatment advice if you feel unwell.  
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CONTROL CENTER or doctor for treatment advice if you feel unwell.  
 IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice or attention. Specific treatment (see First Aid on SDS or on this label). Take off contaminated clothing and wash it before reuse.  
 IF exposed or concerned: Call a POISON CONTROL CENTER or doctor for treatment advice.

**Storage**

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

**Disposal**

Dispose of contents/container in accordance with local, regional, national and international regulations.

**Hazards Not Otherwise Classified:** None Known.

**Percentages of Components with Unknown Acute Toxicity:**

Inhalation: 28%

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

CHEMICAL INGREDIENTS	CAS NO.*	PERCENT (%)**
ETHANAMINE, N-ETHYL-NHYDROXY	3710-84-7	21% - 31%
HYDROQUINONE	123-31-9	< 5%

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

\* Exposure limit and regulatory information in Sections 8 & 15

\*\* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

**4. FIRST AID MEASURES**

**Eye Contact:** Immediately flush with clean, cool water for 15 minutes and if irritation persists, get medical attention.

**Skin Contact:** Immediately wash skin with soap and plenty of water while removing contaminated clothing, for at least 15 minutes. If irritation persists, get medical attention. Launder contaminated clothing before reuse.

**Inhalation:** Remove victim to fresh air. If individual experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic, seek medical attention. If not breathing, give artificial respiration via a suitable mechanical device such as a bag and mask. Do not use mouth-to-mouth resuscitation.

**Ingestion:** Do not induce vomiting. Rinse mouth with copious quantities of water first and get immediate medical attention. Drink several glasses of water. Never give anything by mouth to an unconscious person. If vomiting occurs, keep airways clear.

**Note to Physician:** There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Aspiration may cause lung damage. Probable mucosal damage may contraindicate the use of gastric lavage.

**Most Important Symptoms/Effects:**

**Eye Contact:** May cause irritation. May cause corneal damage with prolonged contact.

**Skin Contact:** Prolonged contact may cause irritation.

**Inhalation:** Inhalation of vapor or mist can cause severe irritation of nose, throat, and lungs. May cause damage to the upper respiratory tract and lungs under severe conditions.

**Ingestion:** May be mildly toxic. May cause gastrointestinal irritation. Do not take internally. May cause nausea, vomiting, and/or diarrhea.

**Indication of Immediate Medical Attention and Special Treatment, if Necessary:**

Other than acute, none known. See section 11 for toxicological information.

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## 5. FIRE FIGHTING MEASURES

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**Suitable (and Unsuitable) Extinguishing Media:** Water spray or fog, foam, dry chemical or carbon dioxide

**Specific Hazards Arising from the Chemical:** Product may be irritating to the eyes, skin, and respiratory system. Closed containers may rupture (due to buildup of pressure) when exposed to extreme heat. If evaporated to dryness, some product residuals may burn. Thermal decomposition may release oxides of carbon and nitrogen.

**Special Protective Equipment and Precautions for Fire-Fighters:** Wear self-contained breathing apparatus and full turn-out gear. Approach fire from upwind direction. If possible, move containers away from fire. Cool fire exposed containers with water spray. If containers rupture or leak, product may evolve irritating or toxic gas under extreme heat. Contain runoff.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Spill Containment and Clean-up Instructions:**

Wear suitable protective equipment found in section 8. 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. The area may then be flushed with copious quantities of water. Floor may be slippery; use care to avoid falling. Avoid release of this product into the environment to prevent contamination of soil, sewers, natural waterways and/or groundwater. See Section 12 for Ecological Information.

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## 7. HANDLING AND STORAGE

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**Handling and Storage:**

Store in a cool, dry, well ventilated area, between 10°C and 49°C. Keep containers tightly closed when not in use and follow all recommended safety precautions when handling the material. Keep out of sun and away from heat or open flame. Keep away from incompatible materials. See Section 10 for incompatible materials.

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## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

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**Engineering Controls:** General ventilation satisfactory. Mechanical may be required to keep concentration below maximum airborne exposure limits in confined areas.

### PERSONAL PROTECTION EQUIPMENT

**Respiratory:** Not normally required if good ventilation is maintained. Otherwise, wear self-contained breathing apparatus

**Eyes and Face:** Chemical resistant goggles or face shield.

**Hands and Skin:** Chemical resistant rubber, neoprene latex or PVC

**Other Protective Equipment:** Eyewash station and safety shower in area of use. Rubber apron and boots are also recommended where workers will be handling the product.

**EXPOSURE GUIDELINES****Exposure Limits:****COMPONENT**

ETHANAMINE, N-ETHYL-NHYDROXY  
HYDROQUINONE

**TLV**

OSHA, COMBUSTIBLE IRRITANT  
TWA: 2mg/m<sup>3</sup>

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance and Odor:</b>	Clear, pale yellow liquid with characteristic odor.		
<b>Odor Threshold:</b>	N.D.	<b>Vapor Pressure:</b>	<30
<b>pH (undiluted):</b>	9.5 - 10.0	<b>Vapor Density:</b>	3-4
<b>Freeze Point:</b>	<-15°C (5°F)	<b>Specific Gravity(@22°C):</b>	0.990 - 1.000
<b>Boiling Point:</b>	>100°C (212°F)	<b>Solubility in Water:</b>	Complete
<b>Flash Point:</b>	>57°C (134.6°F)	<b>Partition Coefficient:</b>	N.D. (n-octanol/water)
	((as solution) Tag Closed Cup)	<b>Auto-Ignition Temperature:</b>	N.D.
<b>Evaporation Rate:</b>	~1.0	<b>Decomposition Temperature:</b>	N.D.
<b>Flammability (solid, gas):</b>	Yes	<b>Viscosity:</b>	N.D.
<b>Flammable Limits in Air:</b>	<b>LFL – N.A.</b>		
	<b>UFL – N.A.</b>		

**10. STABILITY AND REACTIVITY**

**Reactivity:** Not normally reactive at normal temperatures and pressure.

**Chemical Stability:** Stable under normal conditions

**Possibility of Hazardous Reactions:** Will not occur under normal conditions.

**Conditions to Avoid:** Avoid excessive heat, sparks or open flames.

**Incompatible Materials:** Strong oxidizing agents

**Hazardous Decomposition Products:** Thermal decomposition may release oxides of carbon and nitrogen.

**11. TOXICOLOGICAL INFORMATION**

**Ingestion Testing:** Rat, LD50: > 5,000 mg/kg\*

**Skin Testing:** Rabbit, LD50: 4,213 mg/kg\*

**Inhalation Testing:** None established for this product.

\*Calculated based on GHS acute toxicity formula.

**CHRONIC TOXICITY DATA**

**Sensitization Testing:** None established for this product.

**Other Testing:** None established for this product.

**Routes of Exposure:** Eyes, Ingestion, Inhalation, Skin.

**Eye Contact:** May cause irritation. May cause corneal damage with prolonged contact.

**Skin Contact:** Prolonged contact may cause irritation.

**Inhalation:** Inhalation of vapor or mist can cause severe irritation of nose, throat, and lungs. May cause damage to the upper respiratory tract and lungs under severe conditions.

**Ingestion:** May be mildly toxic. May cause gastrointestinal irritation. Do not take internally. May cause nausea, vomiting, and/or diarrhea.

**Medical Conditions Aggravated by Exposure:** None known.

**Chronic Effects from Repeated Overexposure:** Other than short term effects, none established.

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## 12. ECOLOGICAL INFORMATION

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### **Aquatic Toxicity Data:**

Invertebrate: Daphnia magna, EC50/48hr: 5.9 mg/l

Fish: Fathead minnow, LC50/96hr: 1.3 mg/l

**Product Fate Data:** Not expected to bioaccumulate.

**Biodegradation Data:** Not readily biodegradable.

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## 13. DISPOSAL CONSIDERATIONS

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**Waste Disposal:** Dispose of in accordance with local, regional, national and international regulations.

Contact the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: Triple rinse container (or equivalent) promptly after emptying and offer for reconditioning if appropriate. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal.

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## 14. TRANSPORT INFORMATION

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### **US DEPARTMENT OF TRANSPORTATION (DOT) INFORMATION**

**UN/NA ID Number:** UN1993

**Proper Shipping Name:** FLAMMABLE LIQUID, N.O.S. (CONTAINS DIETHYLHYDROXYLAMINE)

**Hazard Class:** 3

**Packing Group:** PGIII

### **VESSEL TRANSPORT (IMO/IMDG)**

**UN/NA ID Number:** UN1993

**Proper Shipping Name:** FLAMMABLE LIQUID, N.O.S. (CONTAINS DIETHYLHYDROXYLAMINE)

**Hazard Class:** 3

**Packing Group:** PGIII

**Marine Pollutant:** Yes

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## 15. REGULATORY INFORMATION

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### **US FEDERAL REGULATIONS**

**TSCA:** All ingredients listed or exempt from listing.

### **CERCLA and/or SARA RQ:**

Reportable Quantity: HYDROQUINONE (CAS#123-31-9) - 100lbs. (45 kg)

**SARA Section 302 Hazard Class:** No ingredients listed in this section.

### **SARA Section 311/312 Chemicals:**

Acute Health Hazard: Yes

Chronic Health Hazard: No

Fire Hazard: Yes

Sudden Release of Pressure Hazard: No

Reactive Hazard: No

**SARA Section 313 Chemicals:** No ingredients listed in this section.

### **STATE REGULATIONS**

This product contains a chemical(s) known to State of California to cause cancer and/or birth defects or other reproductive harm.

**16. OTHER INFORMATION**

**HAZARD RATING SUMMARY**

Hazard Rating System:	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

**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. It may not be used for the treatment of potable water. This product is not approved for use in boilers where steam can contact food or other edible products.

**SDS REVISION SUMMARY**

Revised Date	Revision Notes
12/7/15	GHS Version 1.0: Supersedes: 5/6/15, updated GHS categories

**ABBREVIATION CODE SUMMARY**

- N.A. – Not Applicable
- N/A – Not Available
- N.D. – Not Determined
- N.E. – None Established

*Disclaimer: The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given.*