

HarChem

H₂O

Water Services

PO Box 310, Muldrow, OK 74948

SAFETY DATA SHEET

HB-864

SECTION 1: PRODUCT DESCRIPTION

PRODUCT NAME: HB-864

RECOMMENDED USE: Boiler Chemical

SYNONYMS: Diethylaminoethanol

DISTRIBUTOR: HarChem Water Services 1955 South Caddo Street Muldrow, OK 74948

CONTACT NUMBER: (918) 427 0777

EMERGENCY CONTACT NUMBER: (918) 427 0777 or (479) 806 0266

Chemtec 1-(800)-262-8200

SECTION 2: HAZARD IDENTIFICATION

Classification of the chemical

PICTOGRAM REPRESENTATION



Ingredient (s)	CAS#	% (by weight)
Diethylaminoethanol	100-37-8	20-40
Water	7732-18-5	1-20

POTENTIAL HEALTH EFFECTS: May cause severe skin irritation.

May cause severe respiratory tract irritation.

May generate toxic or irritating combustion products.

HAZARD CLASSIFICATION: Flammable liquids : Flashpoint > 150 degrees F.

Skin Irritation: Category II

Skin Sensation: Product is a sensitizer or is positive for sensitization.

Skin Corrosion: Category I

Acute Inhalation Toxicity: Category II

HAZARD STATEMENT: Corrosive. Can cause skin irritation.

SIGNAL WORD (IF APPLICABLE): **Danger**

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

MOLECULAR FORMULA: C₆H₁₅NO

MOLECULAR WEIGHT: 117.18

GENERAL USE: Boiler Chemical

SECTION 4. FIRST AID MEASURES

EYES: Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes, seek medical advice.

SKIN: Remove product and immediately flush affected area with water for at least 15 minutes. Remove contaminated clothing and shoes. Destroy contaminated leather apparel. Cover the affected area with sterile dressing or clean sheeting and transport for medical care. **DO NOT APPLY**

GREASES OR OINTMENTS. Control shock, if present. Launder contaminated clothing prior to reuse.

INGESTION: In the event of ingestion, administer 3-4 glasses of milk or water. **DO NOT INDUCE VOMITING.** Seek medical advice.

INHALATION: Move patient to fresh air. If breathing has stopped or is labored give assisted respiration (e.g. mouth-to-mouth). Prevent aspiration of vomit. Turn victims head to the side. Seek medical advice.

SECTION 5: FIRE-FIGHTING MEASURES

FLASH POINT: (Closed Cup): 158F

AUTOIGNITION: 563.00 F

EXTINGUISHING MEDIA: Ignition will give rise to a Class B fire. In case of large fire use: Water Spray, Alcohol Foam. In case of small fire use: Carbon Dioxide (CO₂), dry chemical, dry sand or limestone.

FIRE / EXPLOSION HAZARDS: May generate toxic or irritating combustion products. Vapor forms explosive mixtures with air. Contact of liquid with skin must be prevented. May generate carbon monoxide gas. May generate toxic nitrogen oxide gases. May generate ammonia gas. Personnel in vicinity and downwind should be evacuated.

FIRE FIGHTING PROCEDURES: A face shield should be worn. Firefighters should wear butyl rubber boots, gloves, and body suit and a self-contained breathing apparatus. Water spray may be used to cool closed containers exposed to fire. Retain expended liquids from fire for later disposal.

NFPA Hazard Codes:

Health : 2

Fire: 2

Reactivity: 2

Other: CORR

SECTION 6: ACCIDENTAL RELEASE MEASURES

Containment Techniques: (Removal of ignition sources, diking etc.) Shut off or remove all ignition sources. Stop the leak, if possible. Reduce vapor spreading with water spray. Construct a dike to prevent spreading. Protect workers with water spray.

Clean-Up Procedures: If recovery is not feasible, admix with dry soil, sand or non-reactive absorbent and place in a container or dumpster pending disposal. Transfer to containers by suction preparatory for later disposal. Flush area with water spray. Clean up personnel must be equipped with self-contained breathing apparatus and butyl rubber protective clothing. For large spilled material with a vacuum truck.

SECTION 7: HANDLING AND STORAGE

STORAGE: Keep away from: acids, oxidizers, heat, flames, and spark. Keep in cool, dry, ventilated storage and in closed containers. Store away from ignition sources. Ground all containers during transfer. Store in steel containers preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. Electrical installations should be in accordance with Article 501 of the National Electrical Code for Class 1 Division 2 locations. Do not store in iron or other reactive metal containers.

HANDLING: Avoid contact with skin or eyes. Avoid breathing of vapors. Handle in well ventilated workspace. Empty containers may contain explosive vapors. Flush empty containers with water to remove residual flammable liquid and vapors. Smoking in area is prohibited. Label empty tank cars > Dangerous Empty =. See Flammable And Combustible Liquid Code NFPA No. 30, National Fire Protection Association, Boston, MA. Remove all equipment which may be a source of ignition from vicinity while handling. When handling, do not eat, drink, or smoke. Avoid using in any spray application without strict conformance to all applicable electrical codes and the OSHA limit for maximum allowable airborne concentrations.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE PROTECTION

Full face shield with goggles underneath.

HAND PROTECTION

Neoprene rubber gloves. Impermeable gloves. Cuffed butyl rubber gloves. Nitrile rubber gloves.

RESPIRATORY PROTECTION

Not required under normal conditions in a well-ventilated workplace. Under the following conditions a respirator may be required: when product vapor concentration exceeds the limits listed in section 2, during repair and cleaning of equipment, during transfer or discharge of the product, sampling, spray applications. Types of respirators that may include the following: Chemical Cartridge Respirator with the face piece to protect against organic vapor, Supplied air respirator with full face piece, Self-contained breathing apparatus in pressure demand mode. In emergency conditions use a self-contained breathing apparatus in pressure demand mode.

PROTECTIVE CLOTHING

Impervious clothing. Slicker Suit. Rubber boots. Full rubber suit (rain gear). Butyl or latex protective clothing.

ENGINEERING CONTROLS

Explosion proof and general local exhaust with 12-30 air changes per hour. Maintain air concentrations in work spaces in accord with standards outline in Sections 2 and 3.

WORK AND HYGIENIC PRACTICES

Provide readily accessible eye wash stations and safety showers. Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove clothing that becomes contaminated. Discard contaminated leather articles. Launder or discard contaminated clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Liquid

Color: Colorless

Odor: Ammoniacal

pH: 11.1

Vapor Pressure (mm Hg at 21C (70F)): 1.28

Vapor Density (Air = 1): 4.03

Boiling Point: 162.00 C (323.60 F)

Melting Point: -60.00 C (-76.00 F)

Specific Gravity (Water = 1): 0.88

Viscosity (CPS): 4 @ 20C (68.00 F)

Molecular Weight: 117

SECTION 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY

Stable

CONDITIONS TO AVOID (if unstable)
Not applicable

INCOMPATIBILITY (Materials to Avoid)

Mineral acids (i.e. sulfuric, phosphoric, etc.). Organic acids (i.e. acetic acid, citric acid etc.). Sodium or Calcium Hypochlorite. CAUTION! N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Heat. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Materials reactive with hydroxyl compounds. Nitrites, nitro sating agents. A reaction accompanied by large heat release occurs when the product is mixed with acids. Heat generated may be sufficient to cause vigorous boiling creating a hazard due to splashing or splattering of hot materials.

HAZARDOUS DECOMPOSITION PRODUCTS (from burning, heating, or reaction with other materials).

Carbon Monoxide in a fire. Carbon Monoxide in a fire. Ammonia when heated. Nitrogen Oxides in a fire. Irritating and toxic fumes at elevated temperatures. Nitric acid in a fire. Nitrosamines. Aldehydes. Nitrogen Oxide can react with water vapors to form corrosive nitric acid (TLV=2ppm).

HAZARDOUS POLYMERIZATION

Will not occur

CONDITIONS TO AVOID (if polymerization may occur)

Not applicable

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity (LD50, RAT)

1300.00 mg/kg

Acute Dermal Toxicity LD50, RABBIT)

1100.00 mg/kg

ACUTE INHALATION TOXICITY (LC50, RAT)

No Data

Data Available on components only.

OTHER ACUTE EFFECTS

No Data

IRRITATION EFFECTS DATA

Corrosive to the eyes of a rabbit. Severe irritant to the skin of a rabbit.

CHRONIC/SUBCHRONIC DATA

Sub chronic exposure of this material or component in test animals has caused abnormalities in the following organ (s): Central nervous system.

SECTION 12. ECOLOGICAL INFORMATION

ECOTOXICITY

Fathead Minnows LC50 (Flow through) 1780 mg/l

golden orfe LC50 96 hours 100-220 mg/l

Daphnia magna EC50 48 hours 83.6 mg/l

Green algae EC50 72 hours 30 mg/l

ENVIROMENTAL FATE

Biochemical Oxygen Demand (EC50 days) 0.1 g02/g

Chemical Oxygen Demand (COD) 1.35 g02/g

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Comply with all Federal, State and Local Regulations. Almost all disposal methods are subject to regulation under RCRA. In particular, review RCRA Land Disposal Restrictions. Under some conditions, material contaminated with this product may be land filled at appropriately permitted facilities. When a decision is made to discard this material as supplied, it is classified as a RCRA hazardous waste with the following characteristic (s): ignitable, hazardous waste number D001.

SECTION 14: TRANSPORT INFORMATION

DOT Non-Bulk Shipping Name	2-Diethylaminoethanol // 8 // UN2686
//	PG II // (3)
DOT BULK SHIPPING NAME	Refer to Bill of Lading.
IMO SHIPPING DATA	Refer to Bill of Lading.
ICAQ/IATA SHIPPING DATA	2-Diethylaminoethanol // 8 // UN2686
//	II // (3) //Shipment per 49 CFR 171.
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SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

TOXIC SUBSTANCES CONTROL ACT (TSCA) -

All components are included in the EPA Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

OSHA Hazard Communication Standard (29CFR1910.1200) hazard class (es) Corrosive, Sensitizer, Combustible.

EPA SARA Title III Section 312 (40 CFR370) hazard class

Immediate Health Hazard. Delayed Health Hazard. Fire Hazard.

EPA SARA Title III Section 312 (40CFR372) toxic chemicals above deminimis level are

None

STATE REGULATIONS

PROPOSITION 65 SUBSTANCES (component (s) known to the State of California to cause cancer and/or reproductive toxicity and subject to warning and discharge requirements under the (Safe Drinking Water and Toxic Enforcement Act of 1986")

None

NEW JERSEY TRADE SECRET REGISTRY NUMBER (S)

None

SECTION 16: OTHER INFORMATION

Date of Preparation: 05/25/08

Last Revision: 12/1/14

