Advanced Chemical Technology Inc.

BT-409

SAFETY DATA SHEET

Version 1.1
Effective Date: 05/15/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	BT-409
Description:	Steam Line Treatment
Suggested Use:	Industrial Water Treatment
Restrictions on Use:	Do not mix with other industrial chemicals
Supplier:	Advanced Chemical Technology, Inc. 8728 Utica Avenue Rancho Cucamonga, CA 91730
Telephone:	1-909-980-4556 or 1-800-632-1777
Fax:	1-909-980-9366
Emergency Phone:	1-800-255-3924 (CHEMTEL)

2. HAZARDS IDENTIFICATION

Classification

GHS Classification:
Skin Corrosion (Category 1A)
Serious Eye Damage (Category 1)
Acute Toxicity, Oral (Category 4)
Acute Aquatic Toxicity (Category 3)

GHS Label Elements

Pictogram:

Signal Word: Danger

Hazard Statements:
H314: Causes severe skin burns and eye damage
H302: Harmful if swallowed
H402: Harmful to aquatic life

Precautionary Statements:
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303+P361+P353: IF ON SKIN OR HAIR: Remove all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P313: Get medical attention.

HMIS Classification:

Health Hazard:	2
Flammability:	2
Physical Hazards:	0

NFPA Rating:

Health Hazard:	2
Fire:	2
Reactivity Hazard:	0

Potential Health Effects

Inhalation:	Vapor is irritating to mucous membranes and respiratory system.
Skin:	May cause corrosive action on contact with skin. May cause a more serious response if confined to the skin or if skin is abraded. A single prolonged exposure is unlikely to result in harmful quantities being absorbed.
Eyes:	Vapors will irritate the eyes. Liquids and mists can severely irritate or damage the eyes and cause corneal burns.
Ingestion:	This material is corrosive to the mouth and throat.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Concentration
Diethylaminoethanol	100-37-8	35%
Cyclohexylamine	108-91-8	10%

Synonyms: Not Established

4. FIRST AID MEASURES

If Inhaled:	If not breathing, give artificial respiration. Consult a Physician.
Skin Contact:	Immediately remove contaminated clothing and shoes, wash before reuse. Flush all affected areas with large amounts of water for at least 15 minutes.
Eye Contact:	Immediately flush the eyes with large quantities of running water for a minimum of 15 minutes. Obtain medical attention immediately.
If Ingested:	Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. Give large quantities of water (If available, give several glasses of milk). If vomiting occurs spontaneously, keep airway clear and give more water. Consult a physician immediately.

5. FIREFIGHTING MEASURES

Flammability Overview:	Irritating vapors may be emitted during a fire.
Flash Point:	149° F TCC
Extinguishing Media:	Water-spray, foam, carbon dioxide or dry chemical for fires in storage areas.
Special Protective Equipment for Firefighters:	Wear a self-contained breathing apparatus (SCBA) for firefighting if necessary.
Hazardous Combustion Products:	Carbon monoxide, carbon dioxide, ammonia, and oxides of nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Use personal protective equipment. Wear goggles, rubber boots and gloves.
Environmental Precautions:	Prevent from entering drains and waterways. Discharge into the environment must be avoided.
Containment and Clean Up:	Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. If assistance is needed call CHEMTEL or emergency services.

7. HANDLING AND STORAGE

Safe Handling: Use personal protective equipment. Avoid breathing vapors, mist, or gas. Always ensure adequate ventilation.

Safe Storage: Keep containers tightly closed in a dry well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store away from incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Component	CAS Number	Exposure Limit	Basis
Diethylaminoethanol	100-37-8	2 ppm TWA	ACGIH Threshold Value (TLV)
		10 ppm TWA	OSHA Table Z-1: Limits for Air Contaminants
		Not Established	NIOSH Recommended Exposure Limits
Cyclohexylamine	108-91-8	10 ppm TWA	ACGIH Threshold Value (TLV)
		Not Established	OSHA Table Z-1: Limits for Air Contaminants
		Not Established	NIOSH Recommended Exposure Limits

Personal Protective Equipment

Eye Protection: Wear tightly fitting safety goggles or safety glasses with a full-face shield. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH. Have eye-wash stations available where eye contact can occur.

Hand Protection: Handle with chemical-resistant gloves. Gloves must be inspected prior to use. Dispose of contaminated gloves. Wash and dry hands after use.

Skin Protection: Wear complete suit protection against chemicals, including chemical-resistant boots. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Safety showers should be located in the work area where skin contact can occur.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate, use a NIOSH-approved full-face respirator with appropriate cartridges. For high concentrations, unknown concentrations, and for oxygen deficient atmospheres, use a NIOSH approved air-supplied respirator. Respiratory protection may be needed for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA 29 CFR 1910.134.

General Controls: Always ensure adequate ventilation and that working areas contain safety showers and eye wash stations. Handle material in accordance with good industrial hygiene and safety practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Color: Clear
Odor: Ammoniacal
Odor Threshold: Not Established
pH: >12.2

Melting/Freezing Point:	Not Established
Boiling Point:	210 °F
Flash Point:	149 °F TCC
Evaporation Rate:	Not Established
Flammability (solid, gas):	Not Established
Flammability/Explosion Limits:	Lower: 6.76 Upper: 27.2
Vapor Pressure @ 20°C:	5.8 mmHg @ 20C
Vapor Density:	0.92
Specific Gravity:	0.9482
Density:	Not Established
Solubility in Water:	Miscible
Partition Coefficient:	Not Established
Autoignition Temperature:	Not Established
Decomposition Temperature:	Not Established
Viscosity:	Not Established

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under recommended conditions.
Conditions and Materials to Avoid:	Do not mix with other industrial chemicals. Strong oxidizing agents, halogen compounds, acids, copper, aluminum and galvanized metals.
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide, ammonia and oxides of nitrogen

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component	CAS Number	Test	Toxicity
Diethylaminoethanol	100-37-8	Oral LD50 (Rat)	2400 mg/kg
		Dermal LD50	Not Established
		Inhalation LD50 (Rat)	Not Established
Cyclohexylamine	108-91-8	Oral LD50 (Rat)	150 mg/kg
		Dermal LD50	Not Established
		Inhalation LD50 (Rat)	1500 mg/m^3

Potential Health Effects

Inhalation:	Vapor is irritating to the nose, throat, and mucous membranes.
Skin:	Causes skin irritation. May cause a more serious response if confined to the skin, or if the skin is abraded. A single prolonged exposure is unlikely to result in harmful quantities being absorbed.
Eyes:	Liquids and mists can severely irritate or damage the eyes and cause corneal burns.
Ingestion:	This material is irritating to the mouth and the throat.
Signs and Symptoms of Exposure:	Persons with pre-existing skin disorders, eye problems, or impaired respiratory functions may be more susceptible to the effects of this substance.
Chronic Effects of Long-term Exposure:	Primary irritant dermatitis. Prolonged contact may result in destruction of tissue.

Carcinogenicity: No component of this product at levels greater than 0.1% is identified as carcinogenic by IARC, ACGIH, or OSHA.

12. ECOLOGICAL INFORMATION

Acute Ecotoxicity

Component	CAS Number	Organism	Ecotoxicity
Diethylaminoethanol	100-37-8	Not Established	Not Established
Cyclohexylamine	108-91-8	Not Established	Not Established

Ecological Effects

Persistence and Degradability: Not Established

Bioaccumulation Potential: Not expected to bio-accumulate

Mobility in Soil: Not Established

Other Adverse Effects: Not Established

13. DISPOSAL CONSIDERATIONS

Disposal: Surplus and non-recyclable material should be treated as hazardous waste and be disposed of by a licensed disposal company. Material should be disposed in accordance with all local, state, and federal regulations. Regulations vary by region. Do not release into sewers or waterways.

Contaminated Packaging: Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT Information

Proper Shipping Name: Corrosive liquid, n.o.s. (contains Diethylaminoethanol, Cyclohexylamine, Morpholine, aqueaous solution)
UN Number: 1760
Hazard Class: 8
Packing Group: II

Reportable Quantity (RQ): Cyclohexylamine: 1,000 lbs.

Marine Pollutant:

Note: Regulated for both bulk and non-bulk.

15. REGULATORY INFORMATION

US Federal

SARA 302 Components: Threshold Planning Quantity for cyclohexylamine is 10,000 lbs.
SARA 311/312 Hazards: Acute Health Hazard

SARA 313 Components:	This product does not contain a Section 313 listed toxic chemical subject to release reporting requirements.
TSCA Inventory:	All chemical components are listed on TSCA Inventory.

European Union

EC Inventory:	Not Established

State Regulations

CA Prop 65:	This product does not contain chemicals currently on the California list of know carcinogens and/or reproductive toxins.

16. OTHER INFORMATION

SDS Version:	1.1
Revision Date:	06/01/15
Disclaimer:	The information contained in this document was carefully compiled and is believed to be accurate. The information represents the present state of our knowledge and is applicable to the product with the regard to appropriate safety precautions. However, it does not represent any guarantee of the properties of the product. Advanced Chemical Technology, Inc. shall not be held liable for any damages resulting from handling or from contact with the above product. It is the responsibility of the purchaser to determine the suitability of the product for their particular purposes. Nothing contained herein shall be construed to be a recommendation to use, or as a license to operate under, or to infringe any existing patents. For product information call Advanced Chemical Technology, Inc., 1-909-980-4556