MATERIAL SAFETY DATA SHEET

Date Issued: 08/07/2007
MSDS No: WST132
Date Revised: 07/19/2012
Revision No: 2

STEAM 132

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: STEAM 132
PRODUCT DESCRIPTION: INDUSTRIAL WATER TREATMENT COMPOUND
PRODUCT CODE: WST132A
PRODUCT FORMULATION NAME: STEAM 132
ACTIVE INGREDIENT(S): Diethylethanolamine

MANUFACTURER
Zee Company, Inc.
4146 South Creek Road
Chattanooga, TN 37406
Emergency Contact: James A. Faller
Service Number: (423) 698-1401

24 HR. EMERGENCY TELEPHONE NUMBERS
CHEMTREC (800) 424-9300

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Colorless liquid

IMMEDIATE CONCERNS: May cause eye damage and skin irritation

POTENTIAL HEALTH EFFECTS

EYES: Corrosive to eyes

SKIN: Skin irritation, possibly severe, if exposed to undiluted material for extended period.

INGESTION: Harmful or fatal if swallowed.

INHALATION: Irritating

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Severe irritation and burning

SKIN: Redness and irritation

INGESTION: Gastric pain and vomiting

INHALATION: Coughing and sneezing from extreme exposure.

CHRONIC EFFECTS: N/A

CARCINOGENICITY: N/A

MUTAGENICITY: N/A

REPRODUCTIVE TOXICITY

REPRODUCTIVE EFFECTS: N/A

TERATOGENIC EFFECTS: N/A

MEDICAL CONDITIONS AGGRAVATED: None known

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Diethylethanolamine	~ 40	100-37-8

4. FIRST AID MEASURES

EYES: Flush eyes with running water for at least 15 minutes. Get medical attention and check for

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corneal damage.

SKIN: Flush exposed skin with water for at least 15 minutes and get medical attention if irritation persists.

INGESTION: DO NOT induce vomiting. If conscious, give several large glasses of water. Never give anything by mouth to an unconscious person. Call physician immediately.

INHALATION: Move to fresh air. Get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: Not Determined

FLAMMABLE LIMITS: NA to NA

AUTOIGNITION TEMPERATURE: None

EXTINGUISHING MEDIA: This material is not combustible. Use extinguishing media appropriate for surrounding fire.

EXPLOSION HAZARDS: NONE

FIRE FIGHTING PROCEDURES: NONE

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Mop up spill and flush area with water.

LARGE SPILL: Dike spill and vacuum or pump spilled material into proper storage container for hazardous waste disposal.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Keep this and all chemicals out of the reach of children.

STORAGE: Do not freeze. Keep container closed when not in use. Follow label instructions.

ELECTROSTATIC ACCUMULATION HAZARD: N/A

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)			
		EXPOSURE LIMITS	
		OSHA PEL	
Chemical Name		**ppm**	**mg/m³**
Diethylethanolamine	**TWA**		41 8 hr

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Chemical resistant safety goggles/glasses with side shields.

SKIN: Chemical resistant gloves recommended for any prolonged or repeated contact with any chemicals.

RESPIRATORY: Not required

PROTECTIVE CLOTHING: Not required

WORK HYGIENIC PRACTICES: Always use goodhousekeeping procedures when handling chemicals.

9. PHYSICAL AND CHEMICAL PROPERTIES

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PHYSICAL STATE: Liquid
ODOR: Ammonia or strong amine
APPEARANCE: Clear liquid
COLOR: Colorless
pH: ~ 11.3
PERCENT VOLATILE: Not Established
VAPOR PRESSURE: Not Determined
VAPOR DENSITY: Not Established
BOILING POINT: > (212°F)
FREEZING POINT: Not Determined
MELTING POINT: Not Determined
FLASHPOINT AND METHOD: Not Determined
SOLUBILITY IN WATER: Completely Miscible
EVAPORATION RATE: < 1 (Water = 1)
SPECIFIC GRAVITY: ~ 1.030
WEIGHT PER VOLUME: 8.6 lb/gal

10. STABILITY AND REACTIVITY

STABLE: Yes
HAZARDOUS POLYMERIZATION: No
POLYMERIZATION: Hazardous polymerization will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS: Heat, carbon dioxide, carbon monoxide
INCOMPATIBLE MATERIALS: None known

11. TOXICOLOGICAL INFORMATION

CARCINOGENICITY

IARC: Ingredients not listed.
NTP: Ingredients not listed.
OSHA: Ingredients not listed.

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY (ACUTE): Daphnia magna 48 hr. LC50 161 mg/L. Fathead minnow 96hr. LC50 470 mg/L.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of in accordance with Federal, State and local regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (Contains Diethylethanolamine)
PRIMARY HAZARD CLASS/DIVISION: 8

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SECONDARY HAZARD CLASS/DIVISION: 3
UN/NA NUMBER: 2734
PACKING GROUP: II
BULK FREIGHT CLASS: 55
PLACARDS: Corrosive

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Reporting required for inventory above TPQ
ACUTE: Yes
313 REPORTABLE INGREDIENTS: Not required
302/304 EMERGENCY PLANNING
EMERGENCY PLAN: Section 302 reporting not required. Section 304 reporting is required for releases above the threshold amount listed.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: Same as section 304
REPORTABLE SPILL QUANTITY: 3167 gallons

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: INGREDIENTS LISTED

RCRA STATUS: N/A

16. OTHER INFORMATION

APPROVED BY: James A. Faller **TITLE:** Director of Research
PREPARED BY: James A Faller
INFORMATION CONTACT: James Faller
REVISION SUMMARY: Revision #: 2. This MSDS replaces the July 19, 2012 MSDS., Any changes in information are as follows: In Section 5: (Group Field) for Flash PointIn Section 14: DOT Proper Shipping Name, DOT Secondary Hazard Class/Division

HMIS RATING

HEALTH:	1
FLAMMABILITY:	2
PHYSICAL HAZARD:	1
PERSONAL PROTECTION:	B

GENERAL STATEMENTS: The information contained herein is believed to be accurate but is not warranted to be so. Users are advised to confirm in advance of need that information is current, applicable, and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.