MATERIAL SAFETY DATA SHEET

Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Issued by: JEEEN International Corporation
24 Madison Road
Fairfield, NJ 07004
Telephone # 973-439-1401
Revision Date: November 7, 2013

Product: JEEMIDE DEA
Chemical Name and or Family Description: DIETHANOLAMINE
Alkanolamine

Section 2. COMPOSITION / INFORMATION ON INGREDIENTS

THE CRITERIA FOR LISTINGS COMPONENTS IN THE COMPOSITION SECTION IS AS FOLLOWS: CARCINOGENS ARE LISTED WHEN PRESENT AT 0.1% OR GREATER; COMPONENTS WHICH ARE OTHERWISE HAZARDOUS ACCORDING TO OSHA ARE LISTED WHEN PRESENT AT 1.0% OR GREATER; NON-HAZARDOUS COMPONENTS ARE LISTED AT 3.0% OR GREATER. THIS IS NOT INTENDED TO BE A COMPLETE COMPOSITIONAL DISCLOSURE. REFER TO SECTION 14 FOR APPLICABLE STATES RIGHT TO KNOW AND OTHER REGULATORY INFORMATION.

Product and/or Component(s) Carcinogenic According to: OHSA IARC NTP OTHER NONE
- - - - X

Composition: (Sequence Number and Chemical Name)
Seq. Chemical Name: 01 - Ethanol. 2,2'-iminobis-(Common Name- Diethanolamine) CAS #:111-42-2 Range in %: 100.00
PRODUCT IS HAZARDOUS ACCORDING TO OSHA (1910.1200) * COMPONENT IS HAZARDOUS ACCORDING TO OSHA.
Exposure limits referenced by Sequence Number in the Composition Section
Seq. Limit
01 3.0  ppm TWA-OSHA
01 0.46 ppm TWA-ACGIH (SKIN)

Section 3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW
Appearance: Clear liquid above 82F
Odor: Ammonia - like odor

WARNING STATEMENT
WARNING ! CAUSES EYE IRRITATION, MAY CAUSE SKIN IRRITATION, MAY CAUSE BLOOD EFFECTS, LIVER AND KIDNEY DAMAGE BASED ON ANIMAL DATA. DO NOT ADD NITRATES - MAY FORM SUSPECTED CANCER CAUSING NITROSAMINES.

HMIS NFPA
Health: 3 Reactivity: 0 Health: 2 Reactivity: 0
Flammability: 1 Special : - Flammability: 1 Special : -
ND = Not Determined NA = Not Applicable NT = Not Tested < = Less than > = Greater than

Section 4. FIRST AID MEASURES (CONT)

Inhalation: If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists.
Other Instructions: None

Section 5. FIRE - FIGHTING MEASURES:

Ignition Temperature - AIT (degrees F): Not determined.
Flash Point (degrees F): 310 (PMCC)
Flammable Limits (%): Lower: 1 Upper: 10

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Section 5. FIRE - FIGHTING MEASURES CONTINUED

Recommended Fire Extinguishing Agents And Special Procedures: Use water spray, dry chemical, foam, or carbon dioxide to extinguish flames. Use water spray to cool fire-exposed containers. Water or foam may cause frothing.

Unusual or Explosive Hazards: None

Special Protective Equipment for Firefighters: Wear full protective clothing and positive pressure breathing apparatus. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products.

Section 6. ACCIDENTAL RELEASE MEASURES (Transportation spills: CHEMTREC (800) 424-9300)

Procedures in Case of Accidental Release, Breakage or Leakage: Ventilate area. Avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing. If more than 100 pounds of product is spilled, then report spill according to SARA 304 and / or CERCLA 102(a) requirements, unless product qualifies for the petroleum exemption (CERCLA Section 101(14).

Section 7. HANDLING AND STORAGE

Precautions to be Taken in Handling: Minimum feasible handling temperatures should be maintained. Eye wash should be available nearby when this product is handled or used.

Storage: Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Protective Equipment (type)

Eye / Face Protection: Avoid eye contact. Chemical type goggles with face shield must be worn. Do not wear contact lenses.

Skin Protection: Protective clothing such as coveralls or lab coats should be worn. Launder or dry-clean when soiled. Gloves resistant to chemicals and petroleum distillates should be worn. Exposed workers should wash exposed skin several times daily with soap and water.

Section 9. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)

Medium Lethal Dose

- Oral: LD50 1.41 g/kg (rat) moderately toxic
- Inhalation: Not determined
- Dermal: LD50 3.00 g/kg (rabbit) practically nontoxic

Irritation Index

- Estimation of Irritation (Species)

Skin: (Draize) Believed to be > 3.00 - 5.00 / 8.0 (rabbit) moderately irritating

Eyes: (Draize) Believed to be 50.00 - 80.00 / 110 (rabbit) severely irritating

Sensitization: Not determined.

Other: Recently conducted National Toxicology Program (NTP) subchronic toxicity studies with diethanolamine (DEA) in rats and mice suggest that the kidney, liver, and blood are potential target systems for DEA toxicity, following both oral and dermal exposures. In addition, effects in the brain and spinal cord of rats, and in the hearts of mice were observed only at extremely high dosages of DEA. Effects on several other tissues were reported, although these occurred only at dose levels which caused severe debilitation of the animals, and were considered secondary effects (not directly caused be DEA) by the NTP peer review pathology group. Furthermore, most of the effects reported in these studies were observed in only one of the species tested, and clear dose response trends were not always evident in treated groups, making the relevance of these findings across species questionable. NTP has initiated chronic studies in rats and mice by the dermal route of exposure. These studies may clarify the results of the subchronic studies as well as provide information on the potential carcinogenicity of DEA. Preliminary findings from a developmental toxicity study in the rat with dermal application of diethanolamine has shown that this chemical has a potential to cause developmental delay in the fetus. The effect seen was a general delay in ossification (i.e., bone substance formation in the skull at doses shown to cause severe maternal toxicity. A definitive developmental study is currently underway to clarify the above findings.
Section 10  DISPOSAL CONSIDERATIONS

Waste Disposal Methods: This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

Remarks: None

Section 11 TRANSPORT INFORMATION

TRANSPORTATION
DOT: Proper Shipping Name: Not Regulated
This product contains a DOT Hazardous Substance or Substances, listed in Section 14 of the MSDS. If the product’s shipping container holds at least 100 lbs, then the DOT information must be accompanied with RQ notation, or, an otherwise ‘Not Regulated’ product will be classified as Environmentally Hazardous (solid / liquid) N.O.S. Class 9, unless the product qualifies for the petroleum exemption (49 CFR 171,8).

IMDG: Proper Shipping name: Not evaluated

Section 12. REGULATORY INFORMATION

EINECS Inventory Status:
This product, or its components, are listed on or are exempt from the European Inventory of Existing Chemical Substances (EINECS) or the European List of Notified Chemical Substances (ELINCS).

Australia Inventory Status: This product or its components, are listed on or are exempt from the Australian Inventory of Chemical Substances (AICS).

Japan Inventory Status: This product, or its components, are listed on or are exempt from the Japanese Ministry of International Trade and Industry (MITI) inventory.

Section 13. ECOLOGICAL INFORMATION
N/A

Section 14. PHYSICAL PROPERTIES
Appearance: Liquid

Section 15. ENVIRONMENTAL INFORMATION

Aquatic Toxicity: Not determined.
Mobility: Not determined.
Persistence and Biodegradability: Not determined.
Potential to Bioaccumulate: Not determined.
Remarks: None

Section 16. OTHER INFORMATION

Do not add nitrites. This product contains amines which can combine with nitrites or other nitrosating agents to form nitrosamines. Many nitrosamines have been found to cause cancer in laboratory animals. “SKIN” notation in Section 2 indicates possible adverse health effects as a result of absorption through the skin, mucous membranes and eyes. By contact with vapor, mist, spray or liquid. Appropriate measures should be taken to minimize contact.

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CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

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