MATERIAL SAFETY DATA SHEET

CORNBELT N-TENSE

Van Diest Supply Company
P.O. BOX 610
Webster City, IA 50595
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FOR CHEMICAL EMERGENCY
SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT
CALL CHEMTREC - DAY OR NIGHT
1-800-424-9300

PRODUCT IDENTIFICATION

Common Name: Cornbelt N-Tense
EPA Registration #: None
Chemical Class: Water conditioner and buffer blend
Synonyms: fertilizer solution, water softener, buffer, acidifier
Product Use: As a water conditioner and buffer for certain pesticide applications. Diluted with water prior to use.

COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients >1.0% by weight: MCDS buffer blend CAS #21351-39-3
Ingredients on OSHA Hazards List: None
Ingredients with Unknown Toxicological Properties: None
Ingredient Concentration: Fertilizer, water conditioner, buffer blend -- 100%
Exposure Limits for Ingredients: Recommend following ACGIH TLV's for acids: 8 hour TWA: 1 mg/m^3 and 15 minute STEL: 3 mg/m^3

PHYSICAL AND CHEMICAL PROPERTIES

Odor: Very slight pleasant odor
Appearance: Clear golden yellow colored liquid
Density: 1.19 g/L @ 20°C
pH: 2.0-2.5
Solubility In Water: Soluble
Boiling Point: Not available
Vapor Pressure: Not available
Vapor Density: Not available
Freezing/Melting Point: Not available
Evaporation Rate: Not available
Water/Oil Partition Coefficient: Not available
Viscosity: 325 cps @ 20°C

STABILITY AND REACTIVITY

Stability: Stable
Conditions To Avoid: None
Hazardous Polymerization: Will not occur
Hazardous Decomposition: Decomposition may produce oxides of carbon, nitrogen, and toxic phosphorus compounds.
Incompatible Materials: Bases, strong oxidizers and reducing agents, many metals (aluminum)

HAZARD IDENTIFICATION

Eye Contact: Contact with eyes may result in severe irritation; permanent injury may result
Skin Contact: Contact with the skin may result in mild dermatitis. Skin contact may aggravate an existing dermatitis condition
Inhalation: May cause irritation and burning to the upper respiratory tract
Ingestion: Small amounts of the product aspirated into the respiratory system during ingestion or vomiting may cause severe burns and severe pulmonary injury and in the lungs due to vomiting can cause chemical pneumonitis, which can be fatal.
Chronic Effects: None known
Medical Conditions Aggravated: Persons with pre-existing dermatitis, respiratory disorders, or an allergic history should use extra care in handling this product.

FIRST AID MEASURES

If poisoning is suspected, or any symptoms are serious, immediately contact the poison information center, doctor, or nearest hospital. Tell the person contacted the complete product name, and the type and amount of exposure. Describe symptoms, and follow the advice given.

Eyes: Flush with running water for at least 15 minutes. Do not permit victim to rub eyes. Get medical attention.
Skin: Remove contaminated clothing. Flush hair and clothes for at least 15 minutes. Wash contaminated clothing before reuse. Get medical attention.
Ingestion: Do not induce vomiting. If victim is fully conscious, immediately give a large amount of water to drink. Never give anything by mouth to a victim who is unconscious or having convulsions. Apply artificial respiration if necessary. Call a doctor or poison control center immediately.
Inhalation: Remove to fresh air. If breathing has stopped, give artificial respiration. Keep at rest. Get medical attention.

ACCIDENTAL RELEASE MEASURES

Steps to be Taken in Case Material is Released or Spilled:
Corrosive liquid. Stop leak and clean up spills immediately, wearing protective clothing.

In Case of Major Spill
Isolate and barricade area and keep bystanders away. Contact local government for advice.

For Small Spills
Stop leak, isolate area and contain spill keeping out of sewers and drains. Pump or scoop large amounts of liquid into a disposable container. Absorb remaining liquid or smaller spills with clay, sand, or vermiculite. Sweep up carefully and shovel into a disposable container. Disposal containers must be labeled appropriately. Rinse area with water and soak up with absorbent. Sweep and shovel up into a disposable container. For contaminated soil or gravel, remove 2-3 inches for disposal and replace with fresh soil or gravel.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Applicable Control Measures
Ensure work areas have ventilation, containment, and procedures sufficient to maintain airborne levels below the TLV listed. Develop written safety and inspection procedures. Warehouses, production areas, parking lots, and waste holding facilities must have adequate containment to prevent environmental contamination. Provide separate shower and eating facilities.

Personal Protective Equipment:

Respirator: Use an approved NIOSH respirator if ventilation is not adequate, particularly in hot non-ventilated spaces.

Eyes: Wear safety glasses with side shields, goggles, or face shield when direct exposure to product, splash or spray is likely.

Skin: Wear full-length work clothing, enclosed boots, and a hat. Wear chemical resistant gloves and an apron if direct contact with the product or spray mix is likely.

Work Place Exposure Guidelines: Follow OSHA 29 CFR 1910.134 requirements whenever conditions warrant the use of a respirator.

HAZARD RATINGS

(4=Extreme; 3=High; 2=Moderate; 1-Slight; 0=Insignificant)

NFPA

Health - 2
Fire - 0
Reactivity - 2

HMIS

Health - 2
Fire - 0
Reactivity - 2

FIRE FIGHTING MEASURES

Flashpoint: >200°F via PMCC
Flammable Limits: None established
Auto Ignition Temperature: N/A
Hazardous Combustion Products: Thermal decomposition may produce oxides or carbon, nitrogen, and sulfur.
Conditions Under Which Flammability Could Occur: None
Extinguishing Media: Use water spray preferably in the form of a fog, dry chemical, foam, or carbon dioxide. Avoid excess water. If a spill or leak has not ignited, use water spray to disperse the vapors. Treat as a liquid chemical type fire where discharges to the environment are to be controlled as quickly as possible. Use of buildings, area, and equipment is to be prevented until properly decontaminated.
Sensitivity to Explosion by Mechanical Impact: No
Sensitivity to Explosion by Static Discharge: No

TOXICOLOGICAL INFORMATION

LD50: Not determined
LC50: Not determined

Irritation Data: This product will irritate human eyes severely following contact. Frequent or prolonged contact with human skin may burn the skin or possibly cause a skin rash (dermatitis). Skin contact may aggravate an existing dermatitis condition.
Sensitation: This product is not expected to cause sensitation
Carcinogenicity: Not determined
Reproductive Toxicity: Not determined
Teratogenicity: Not determined
Mutagenicity: Not determined
Chronic Exposure: Prolonged or repeated exposure may result in severe irritation or corrosive effects.
Other Materials That Show Synergistic Toxic Effects Together with this Product: None

ECOLOGICAL INFORMATION:

No data is available on this product. However, it is recommended that this product, wash or rinse water, and contaminated materials containing this product be kept out of water supplies, ground water, open water, and drainage systems, and away from access by people, animals, and birds.

HANDLING AND STORAGE

Handling: Keep out of reach of children, unauthorized persons, and animals. Avoid eye contact and prolonged skin contact. Avoid inhalation of mists. Wear protective clothing and after work, remove protective equipment, and wash hands before eating, smoking, drinking, or using the toilet. Clean up spilled material immediately, and clean clothes, equipment, and work area after use.
Storage: Store in original container in a cool, dry, well-ventilated, and secure area. Keep separate from other products to prevent cross contamination. Clean up any spilled material immediately. Will corrode incompatible metals such as aluminum, copper, zinc, and mild steel.

DISPOSAL CONSIDERATIONS

Do not reuse containers. Rinse containers thoroughly three times. Consult state and local governments for advice on waste disposal of empty containers. All recovered material must be packaged, labeled, transported, and disposed or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices.

DOT INFORMATION

Proper Shipping Name: Corrosive Liquid, N.O.S. (monocarbamide dihydrogen sulfate), UN1760, 8, PG III
DOT Hazard Required: TDG Class 8
Packing Group: III
Note: DOT regulated Corrosive Liquid, N.O.S., if transported in aluminum, copper, zinc, or mild steel containers. Not Regulated if shipped or packaged in containers such as stainless steel or plastic containers which do not react dangerously with this material.

Ship and store away from food, feed, seed, cosmetics, and medical supplies.

REGULATORY INFORMATION

311/312 Hazard Categories:

Acute (immediate)

313 Reportable Ingredients:

Phosphoric Acid (CAS #7664-38-2) <0.0001%
Monocarbamide Dihydrogen Sulfate (CAS #21351-39-3) <50%
Butanol (CAS #71-36-3
Glycol Ethers (Chemical Category N230) <5%

SARA 302 Extremely Hazardous Substances

Ethylene Oxide (CAS #75-21-8) <0.0001%

CERCLA Hazardous Substances

Ethylene Oxide (CAS #75-21-8) <0.0001%
Acetaldehyde (CAS #75-07-0) <0.0001%

TSCA Inventory Status:

This product and/or all of its components are included on the TSCA Inventory of Chemical Substances.

ADDITIONAL INFORMATION

Prepared By: Van Diest Supply Co.

Date Prepared: 12-2004 Date Revised: 9-2007

The information, data and recommendations in this material safety data sheet relate only to the specific material designated herein and do not relate to use in combination with any other material or in any process. The information, data, and recommendations set forth herein are believed by Van Diest Supply Co. to be accurate. Van Diest Supply Co. makes no warranties, either expressed or implied, with respect thereto and assumes no liability in connection with any use of such information, data and recommendations.