



THATCHER COMPANY MATERIAL SAFETY DATA SHEET

PRODUCT: UREA, 32%

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MSDS Date: August 13, 1998
Emergency Contact: 1-800-424-9300

SECTION I

PRODUCT NAME: Urea, 32%
CHEMICAL NAME: Aqueous Urea Solution
CHEMICAL FAMILY: Solution

DOT SHIPPING INFORMATION: Not DOT regulated

SECTION II - HAZARDOUS INGREDIENTS

This material contains no ingredients which are known by Thatcher Company to be hazardous unless listed below.

HAZARDOUS MATERIAL	CAS NUMBER	w/w %	EXPOSURE LIMITS IN AIR
UREA	57-13-6	32%	NA

The specific identity of some ingredients may be withheld for confidential business purposes. However, all known potential health effects from exposure to these ingredients are being addressed.

SECTION III - PHYSICAL DATA

BOILING POINT (F): decomposes	SPECIFIC GRAVITY: 1.09
VAPOR PRESSURE (mm Hg): Unknown	% VOLATILE, BY VOLUME: About 68%
VAPOR DENSITY (air = 1): Unknown	EVAPORATION RATE: Unknown
SOLUBILITY IN WATER: Complete	
APPEARANCE AND ODOR: colorless liquid.	

SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT: Nonflammable

FLAMMABLE LIMITS: Lel: N/A Uel: N/A

EXTINGUISHING MEDIA: Use any.

SPECIAL FIRE-FIGHTING PROCEDURES: None.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None



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SECTION V - REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS OR MATERIALS TO AVOID:

Nitric acid, gallium, perchlorate, strong oxidizers, caustics and alkalis.

HAZARDOUS DECOMPOSITION PRODUCTS:

Ammonia, cyanuric acid, carbon dioxide, nitrogen oxides.

SECTION VI - HEALTH HAZARD DATA

Carcinogenic Listing:

NTP: No ingredients listed in this section.

IARC MONOGRAPHS: No ingredients listed in this section.

OSHA 29 CFR 1910: No ingredients listed in this section.

ENTRY ROUTES & EFFECTS OF OVEREXPOSURE:

Eye Contact: Can cause eye irritation and thermal burns.

Skin Contact: Frequent or prolonged contact may cause reddening of the skin and possibly promote an allergic irritation.

Ingestion: Abdominal pain, nausea, vomiting and gastrointestinal irritation may result.

CHRONIC: Prolonged and repeated skin contact may cause dermatitis.

STATEMENT OF PRACTICAL TREATMENT:

Eye Contact: Immediately flush with large amounts of water for at least 15 minutes, including under the eyelids. Contact a physician immediately, preferably an Ophthalmologist. Speed and thoroughness in rinsing eyes are important to avoid permanent injury

Skin Contact: Immediately remove contaminated clothing and shoes. Wash affected areas with soap and flush with large amounts of water for 15 to 20 minutes. Get medical attention.

Ingestion: Do not induce vomiting. Get immediate medical attention.



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SECTION VII - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

Store away from incompatible material or sources of heat and ignition. Empty containers may contain residue and can be dangerous.

STEPS TO BE TAKEN IF MATERIAL SPILLS OR LEAKS:

Contain spills and allow to solidify. Shovel spilled material into containers for disposal. Wear approved respirator with ammonia cartridge or self contained breathing apparatus (SCAB). Vegetated areas should be thoroughly flushed with water.

WASTE DISPOSAL METHOD:

Dispose through a licensed waste disposal company. Follow federal, state and local regulation.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: MSA or NIOSH-approved respirator with ammonia cartridge, if necessary.

VENTILATION: Local exhaust recommended.

EYE PROTECTION: Chemical type safety glasses.

SKIN PROTECTION: Rubber gloves.

OTHER PROTECTIVE EQUIPMENT: As needed to prevent contact with eyes.

ACGIH = American Conference of Governmental Industrial Hygienists

CL = Ceiling Level

IARC = International Agency for Research on Cancer: Monographs

OSHA = Occupational Safety and Health Administration

N/A = Not Applicable

NTP = National Toxicology Program: Annual Report on Carcinogens

PEL = Permissible Exposure Level (OSHA)

TLV = Threshold Limit Value (ACGIH)

TWA = Time Weighted Average over 8 Hours

STEL = Short Term Exposure Limit (ACGIH)

ND = Not Determined

This information is, to the best of our knowledge, accurate but may not be complete. THATCHER COMPANY furnishes this information in good faith, but without warranty, representation or guarantee of its accuracy, completeness, or reliability.