



MATERIAL SAFETY DATA SHEET #1003

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SUPERSEDES: 3/30/00

I. PRODUCT IDENTIFICATION

Product: LESCO 46-0-0 Urea **Chemical Family:** Amide
Chemical Name/Synonyms: Carbamide; carbonyldiamine; carbamidic acid

II. PRODUCT INFORMATION: INGREDIENTS

Chemical Name	TLV/TWA	%(by wt.)	CAS#
Urea: Di-amide of carbonic acid	10 mg/M ³ total TLV (dust) 5 mg/M ³ (resp) 15 mg/M ³ total PEL (dust)	100.0	57-13-6

III. PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point:	Decomposes	Specific Gravity (water=1):	NA
Melting Point:	133-135° C(271-275° F)	Bulk Density (lbs./cu. ft.):	45-55
Vapor Pressure (mm Hg):	NA	Evaporation Rate:	NA
Vapor Density (air = 1):	NA	Percent Volatile:	NA
Solubility in Water:	119 g/100 g @ 25° C	Appearance and Odor: White granules with little or no odor. NH ₃ odor upon long standing	
pH:	ND if exposed to moisture.		

IV. FIRE AND EXPLOSION HAZARD DATA

Flash Point (method Used):	non-combustible	Auto Ignition Temperature:	NA
Lower Explosion Limits:	NA	Upper Explosion Limits:	NA
NFPA/HMIS RATING:	HEALTH 0	FIRE 0	REACTIVITY 0

Special Fire-Fighting Procedures: Use extinguishing agent suitable for type of surrounding fire. Material itself burns with difficulty. Urea becomes slippery when wet - guard against falls. Do not allow runoff to enter drains, sewers or water sources. Keep runoff away from trees and shrubs.

Unusual Fire and Explosion Hazards: Irritating or toxic substances may be emitted upon thermal decomposition. Exposed fire fighters should wear MSHA/NIOSH approved self-contained breathing apparatus and full face mask and full protective equipment. Uncontaminated area is not an explosion hazard. May form explosive mixtures subject to spontaneous detonation when contaminated with strong acids (nitric or perchloric) or nitrate fertilizers.

V. HEALTH HAZARDS

Primary Route(s) of Entry: Ingestion, inhalation, dermal, eyes.

Signs & Symptoms of Exposure

Acute: May cause gastrointestinal disturbances if ingested. Symptoms include irritation, nausea, vomiting and diarrhea. Slight skin irritation - reddening, itching and inflammation. Contact with heated material may cause eye and skin burns. May also cause respiratory tract irritation.

Chronic: Asthmatics exposed to dust may have difficulty in breathing. Urea is a naturally occurring chemical in the body. It is an end product of protein metabolism and is excreted in the urine.

Emergency First-Aid Procedures

Ingestion: Do not induce vomiting. Keep affected person warm and at rest. Get medical attention.

Skin: Wash area of contact thoroughly with soap and water. Launder clothing before reuse. Get medical attention if irritation persists. For contact with molten product, do not remove contaminated clothing. Flush skin immediately with large amounts of cold water. If possible, submerge area in cold water. Pack with ice. Thermal burns require immediate medical attention.

Eyes: Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.

Inhalation: Remove affected person from source of exposure. If not breathing, ensure open airway and institute cardiopulmonary resuscitation (CPR). If breathing is difficult, administer oxygen if available. Get medical attention.

Notes to Physician: Supportive measures for severe exposures. Pharmaceutical grade urea is used medically as a diuretic, but not recommended for those with kidney function problems. **Toxicity Information:** Domestic animal oral LDLo = 511 mg/kg. Slightly toxic. (LDLo is lethal low dose.)

Eye Irritation: Slight. **Skin Irritation:** Slight.

Positive Teratogen or Mutagen Carcinogen(NTP): No Potential Carcinogen (IARC or OSHA): No

VI. REACTIVITY

Stability: Stable Unstable

Conditions to Avoid: Temperatures over 160° F in storage.

Incompatibility: Avoid contact with strong oxidizing, acids or bases and also with nitrates. May slowly hydrolyze to ammonium carbamate on long standing which eventually decomposes to ammonia, biuret, cyanuric acid, NO_x, CO_x.

Hazardous Decomposition Products: Thermal decomposition products may be hazardous. Reacts with sodium or calcium hypochlorite to form explosive nitrogen trichloride.

Hazardous Polymerization: Will not occur Will occur

VII. SPILL, LEAK, AND DISPOSAL PROCEDURES

If material is spilled

Notification: No special procedures are required for clean-up of spills or leaks of this material. Avoid methods that result in water pollution. Caution should be exercised regarding personnel safety and exposure to the spilled material, as set forth elsewhere in this data sheet.

Waste Disposal Method: This substance, when discarded or disposed of, is not specifically listed as a hazardous waste in Federal regulations; however, it could be characteristically hazardous if it is considered toxic, corrosive, ignitable, or reactive according to Federal definitions (40 CFR 261). Additional, it could be designated as hazardous according to state regulations.

This substance could also become a hazardous waste if it is mixed with or comes in contact with a hazardous waste. Check 40 CFR 261 to determine whether it is a hazardous waste. If it is a hazardous waste, regulations at 40 CFR 262, 263, 264, 268 and 270 apply. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate.

The transportation, storage, treatment, and disposal of this waste material must be conducted in compliance with all applicable Federal, state, and local regulations.

VIII. SPECIAL PROTECTION INFORMATION

Protective Equipment Suggested for Outdoor Application:

Impervious Gloves Dust Mask Respirator(use NIOSH/MSHA approved)
 Impervious Boots Clean Clothing Eye Goggles / Safety Glasses

Protective Equipment Suggested for Confined Areas:

Sufficient Ventilation Respirator(use NIOSH/MSHA approved) Dust Mask
 Eyewash Station Emergency Shower Impervious Apron

IX. STORAGE AND HANDLING

Precautions: Store in a cool, dry place if possible. Separate from other pesticides, fertilizers, seed, feed, foodstuffs, and away from drains, sewers, and water sources.

Other Precautions: Store in tightly-closed containers in well-ventilated area. Avoid contamination with other "look-alike" materials that may produce an explosion hazard (see **Unusual Fire and Explosion Hazard section**). Keep away from heat, sources of ignition and incompatible materials. Do not reuse empty bags.

X. FEDERAL REGULATORY INFORMATION:

SARA TITLE III; SEC. 311/312 HAZARD CATEGORIES

N Immediate (acute Health)

SEC 302: NA

N Delayed (Chronic) Health

SEC 313: NA

N Fire

CERCLA RQ: NA

N Sudden Release of Pressure

CAA RQ: NA

N Reactivity

EPA REG. No.: NA

HM 181 Shipping Name: Not Regulated.

NA = Not Applicable ND = Not Determined

Preparation and distribution of this Material Safety Data Sheet done by LESCO, Inc., 15885 Sprague Road, Strongsville, OH 44136, pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200).

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