

MATERIAL SAFETY DATA SHEET

ANATRACE, INC.
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Chemical Emergency (24-hr):
- Within U.S. & Canada (800-424-9300)
- International (703-527-3887)

Effective Date: 02./01/2006 Revised:

NAME: UREA **CAT. NO: U1000**

MF: NH₂ - CO - NH₂ / **FW:** 60.06 **CAS NO:** 57-13-6

CHIP R & S Phrases: R:36/38 Irritating to eyes and skin.

S:26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

HAZARDS IDENTIFICATION CHIP Irritant **HCS** Irritant

FIRST-AID MEASURES EYES: Flush with water for 15 minutes. Seek medical advice if irritation persists.

SKIN: Flush with water, then wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Seek medical attention if irritation persists.

INHALATION: Remove the victim from exposure and move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Keep victim quiet and warm. Seek immediate medical attention.

INGESTION: Drink water and seek immediate medical attention. Avoid alcoholic beverages. Never give anything by mouth to an unconscious person.

FIRE-FIGHTING INFORMATION Use media suitable to extinguish the supporting or surrounding fire. Wear NIOSH (or equivalent) approved self contained breathing apparatus. For small fires only: use carbon dioxide, dry powder or foam. Combustible. When heated to decomposition, emits toxic fumes. Explosive mixtures may be formed with hydrochlorites.

Flash Point = No data available.

ACCIDENTAL RELEASE MEASURES Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH-approved respirator. Collect in a manner that does not create dust and place in a suitable waste container. Avoid contact of material with skin or eyes. Use adequate ventilation.

HANDLING AND STORAGE Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH-approved respirator. Avoid contact of material with skin or eyes. Use adequate ventilation. Store ambient.

PERSONAL PROTECTION Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH-approved respirator. A qualified industrial hygienist should evaluate the need for respiratory protection. Use respiratory protection approved by NIOSH (or equivalent) and appropriate to the hazard. Avoid contact of material with skin or eyes. Mechanical ventilation or local exhaust as needed to control exposure to dust, vapors or mists. Access to a safety shower and eye-wash. HMIS Rating: H=0 F=1 R=0.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Crystalline powder; ammonia odor Boiling Point: No data available

Vapor Pressure: No data available Vapor Density: No data available

Solubility (Water): Soluble Specific Gravity: 1.323 (20/4°C)

Percent Volatile: No data available Evaporation Rate: No data available

Chemical formula: C-H4-N2-O.

STABILITY AND REACTIVITY Product is stable. Avoid temperatures above 133°C.

Incompatible with alkalis and nitrates and reacts violently with Gallium Perchlorate. Hazardous decomposition products may include ammonia, biuret and cyanuric acid. Hazardous polymerization will not occur.

TOXICOLOGICAL INFORMATION EFFECTS OF OVEREXPOSURE:

EYES: Contact may cause irritation and slight corneal injury.

SKIN: Contact may cause irritation and/or allergic reaction. May be harmful if absorbed through the skin.

INHALATION: Inhalation of excessive dust may cause irritation.

INGESTION: Chronic ingestion or excessive dosage may cause nausea, vomiting, gastrointestinal tract irritation, venous thrombosis and phlebitis. Laboratory experiments have shown mutagenic effects.

ADDITIONAL INFORMATION:

Reproductive effects, mutation, tumorigenic and toxicity data listed in RTECS under YR6250000. Oral Rat LD50 = 8471 mg/kg (Moscow, USSR - 1986). Toxic effects may include convulsions, dyspnea and coma.

Reproductive: Fertility - abortion (1974).

Tumorigenic Data: Neoplastic by RTECS criteria (1980).

Carcinogenic by RTECS criteria (1980).

Definition(S): RTECS = Registry of Toxic Effects of Chemical Substances.

ECOLOGICAL INFORMATION No information available

DISPOSAL CONSIDERATIONS Dispose of material in accordance with applicable local, state, and federal regulations.

TRANSPORTATION INFORMATION US DOT / IATA: No applicable information.

REGULATORY INFORMATION RCRA - No applicable information.

SARA 302 - No applicable information.

SARA 313 - No applicable information.

EPA TSCA Section 8(b) - Chemical Inventory.

Section 8(d) - unpublished health/safety studies.

Exposure Limits - Not established.

California Proposition 65 - No applicable information.

This bulletin is for your guidance and is based upon information and tests believed to be reliable. Anatrace makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages thereto. The date is offered solely for your consideration, investigation, and verification. These suggestions should not be confused with either state, municipal, or insurance requirements, or with national safety codes, and constitute no warranty. Any use of these data and information must be determined by the user to be in accordance with applicable Federal, State and local regulations.