

Urea

MSDS Number: rm-urea

Revision Date: 12/8/2014

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1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: Urea
Revision Date: 12/8/2014
Version: 1.1
MSDS Number: rm-urea
Common Name: Urea
CAS Number: 57-13-6
Chemical Family: Urea, Carbimide
Chemical Formula: CO(NH₂)₂
Synonyms: Carbimide, Carboylidamide, Carbonidic Acid, Aliphatic amide

Supplier:

Rose Mill Company
100 Brook Street
West Hartford, CT 06110

860-232-9990 (Phone)
860-232-9995 (Fax)

www.RoseMill.com
info@RoseMill.com

2 HAZARDS IDENTIFICATION

Route of Entry: Eyes; Mild eye irritant. Inhalation: Occasional mild irritation effects to nose and throat may occur from inhalation of dust levels greater than 10m/m3.

Target Organs: No target organs have been determined in humans. High does animal ingestion studies indicate the testes are the target organ.

Inhalation: Mild irritation to nose and throat may occur when the PEL or TLV are exceeded.

Skin Contact: May cause irritation.

Eye Contact: May cause irritation.

Ingestion: Not intended for digestoin. Amounts greater than one teaspoonful, when ingested, may cause gastrointestinal problems.

GHS Signal Word:
NONE

GHS Classifications:
None, None, None

GHS Phrases:
H000 - None

GHS Precautionary Statements:
P102 - Keep out of reach of children.
P233 - Keep container tightly closed.
P285 - In case of inadequate ventilation wear respiratory protection.
P304+341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P337+313 - Get medical advice/attention.

There is no known effect from chronic exposure to this product. Urea is approved as a food and cosmetic additive, is an ingredient in

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clinical preparations, and is a normal human metabolite found in urine.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	Percentage	Chemical Name
57-13-6	100	Urea

4 FIRST AID MEASURES

- Inhalation:** Remove from exposure area to fresh air immediately. Note: If breathing has stopped, perform artificial respiration. Keep Person warm and at rest. Get Medical attention.
- Skin Contact:** Wash with soap and water.
- Eye Contact:** Flush with large amounts of water or saline solution, occasionally lifting upper and lower lids, until no evidence of powder remains (approx 15-20mins). Get medical attention if aggravation persists.
- Ingestion:** Non intended for digestion. Small amounts (e.g.a teaspoonful) swallowed accidentally are not likely to cause effects. If large amounts are swallowed, give two glasses of water or milk to drink and seek medical attention.

5 FIRE FIGHTING MEASURES

- Flammability:** non applicable
- Flash Point:** Not applicable

Water, waer fog, CO2, dry chemical, foam

Unusual Fire and Explosion Hazards: Non-explosive in presence of open flames and sparks, of shocks, of heat, of oxidizing materials, of combustible materials, of organic materials, of metals, of acids, of alkalis, of moisture. May explode when mixed with certain strong reducing substances (hyposchlorites).

6 ACCIDENTAL RELEASE MEASURES

Prevent additional discharge of material, if possible to do so without hazard. Prevent spills from entering sewers, watercourses, wells, etc. Product will promote algae growth and may degrade water quality and taste. Notify downstream water users.

All disposals must comply wiht Federal, State and local regulations. Bury, dissolve in water and neutralize.

If user operations generate dust, fume, or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Keep out of reach of children.

7 HANDLING AND STORAGE

Handling Precautions: No special handling precautions are required.

Storage Requirements: Keep container closed: keep away from sparks and open flames. Keep material from direct sunlight. Very low toxicity for humans or animals. Will slowly release ammonia and degrade to nitrate. Ammonia is a toxin hazard to fish. However, ammonia release is low making urea much less toxic than ammonium salts. Aquatic toxicity tests indicate 24 hour exposure at 16,000 mg/L of uea did not kill Creek Chubs. Urea ingestion may be toxic to mammals and birds at body burdens of several thousands mg/g.

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8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use local exhaust at filling zones and where leakage is probable.

Personal Protective Equip: Normally none needed, Wear a NOISH approved dust respirator if engineering, work practice or other control measures are not adequate to prevent overexposure. Where skin and eye contact may occur as a result of prolonged or repeated exposures, wear long sleeved clothing, coveralls, leather gloves and safety glasses with side shields.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White, sold, spherical or granular shape or powder		
Spec Grav./Density:	n/s	Odor:	slight ammonia odor
Boiling Point:	n/a	Solubility:	119 mg/100mg @68F
Molecular weight:	60.07	Freezing/Melting Pt.:	Melting point 271F (133C)

10 STABILITY AND REACTIVITY

Stability: Product is stable under normal conditions.

Hazardous Decomposition: Decomposes to ammonia, biuret, nitrogen oxides, carbon oxides

Hazardous Polymerization: will not occur

11 TOXICOLOGICAL INFORMATION

Acute toxicity:
Toxicity Data LD50 (oral, rat)>2000 mg/kg

Local effects:

Eye contact: Irritating but does not injure eye tissue
 Skin contact: Frequent or prolonged contact may irritate. Low order of toxicity.
 Inhalation: negligible hazard at ambient temperature. Decomposition fumes may cause breathing disorders and/or lung damage. High dust concentrations of air-borne material may cause irritation of the nose and upper respiratory tract.
 Ingestion: Small quantities are unlikely to cause toxic effect. Large quantities may give rise to gastro-intestinal disorders.

Chronic Toxicity:

In a chronic and carcinogenicity screening study conducted in mice over 12 months, urea was administered at 0, 1.45%, 0.9% and 4.5% in the diet. No pathology was reported immediately following treatment period. After 4 months, testes, prostate, uterus were histologically examined for occurrence to tumors in the survivors. although there was a statistically increased incidence of interstitial cell adenomas of the testes in the high dose group, its biological significance was deemed questionable, since the lesion may occur in 100% of controls.

Urea is not classified as a hazardous product. Normally, by paying usual attention to industrial hygiene and by avoiding inhalation of dusty powder, there are not risks in handling urea. The dust may cause irritation to eyes, skin and by inhalation.

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12 ECOLOGICAL INFORMATION

Will slowly release ammonia and degrade to nitrate. Ammonia is a toxic hazard to fish. However, ammonia release is slow making urea much less toxic than ammonium salts. Aquatic toxicity indicates 24 hour exposure at 16,000 mg/L of urea did not kill Creek Chubs. Urea is added in small quantities as a feed supplement for cattle. Urea ingestion may be harmful to mammals and birds at body burdens of several thousands of mg/kg. The product itself and its product of degradation are not harmful under normal conditions of careful responsible use.

13 DISPOSAL CONSIDERATIONS

This material is not considered hazardous waste.

14 TRANSPORT INFORMATION

Not hazardous product according to these transport classifications.

15 REGULATORY INFORMATION

COMPONENT / (CAS/PERC) / CODES

*Urea (57136 n/a%) TSCA

REGULATORY KEY DESCRIPTIONS

TSCA = Toxic Substances Control Act

16 OTHER INFORMATION

Disclaimer:

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