



Zhang&Zhou

JINAN ZZ INTERNATIONAL TRADE CO.,LTD

SAFETY DATA SHEET

Section 1 - Chemical Product

MSDS Name: Urea

Synonym: Carbamide resin; Carbamimidic acid; Carbonyl diamide; Carbonyldiamine; Isourea

Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content	EINECS#
57-13-6	Urea	» 46	200-315-5

Hazard Symbols: None Listed.

Risk Phrases: None Listed.

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Not available.

Potential Health Effects

Eye:

Causes eye irritation.

Skin:

Causes skin irritation.

Ingestion:

Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause cardiac disturbances. May cause disturbed blood electrolyte balance.

Inhalation:

Inhalation of dust causes irritation of the nose and throat, coughing and sneezing.

Chronic:

Prolonged or repeated exposure may cause adverse reproductive effects. Laboratory experiments have resulted in mutagenic effects.

Prolonged exposure or exposure to high concentrations may cause eye damage.

Section 4 - FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

TEL:0086-531-58775259

FAX:0086-531-86510300

ADD: THIRD FLOOR SILVERY LOTUS JINAN HI-TECH DEVELOPMENT ZONE, SHANDONG PROVINCE, CHINA



JINAN ZZ INTERNATIONAL TRADE CO.,LTD

Zhang&Zhou

Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Wash clothing before reuse.

Ingestion:

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Treat symptomatically and supportively. Weak acids such as acetic acid and propionic acid can be used as chemical antidotes, demulcents and stimulants.

Section 5 - FIRE FIGHTING MEASURES

General Information:

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products.

Extinguishing Media:

Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Section 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions.

Provide ventilation

Section 7 - HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage:

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

TEL:0086-531-58775259

FAX:0086-531-86510300

ADD: THIRD FLOOR SILVERY LOTUS JINAN HI-TECH DEVELOPMENT ZONE, SHANDONG PROVINCE, CHINA



Zhang&Zhou

JINAN ZZ INTERNATIONAL TRADE CO.,LTD

Section 8-EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits CAS# 57-13-6: Russia: 10 mg/m³ TWA Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Crystals

Color: white

Odor: ammonia-like

pH: 7.2 (10% solution)

Vapor Pressure: 1.2105 mm Hg @ 25C

Viscosity: Not available.

Boiling Point: decomposes

Freezing/Melting Point: 132 deg C

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits, lower: Not available.

Explosion Limits, upper: Not available.

Decomposition Temperature: Not available.

Solubility in water: Soluble.

Specific Gravity/Density: 1.335

Molecular Formula: CH₄N₂O

Molecular Weight: 60.0408

Section 10 - STABILITY AND REACTIVITY

Chemical Stability:

TEL:0086-531-58775259

FAX:0086-531-86510300

ADD: THIRD FLOOR SILVERY LOTUS JINAN HI-TECH DEVELOPMENT ZONE, SHANDONG PROVINCE, CHINA



JINAN ZZ INTERNATIONAL TRADE CO.,LTD

Zhang&Zhou

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, dust generation, excess heat.

Incompatibilities with Other Materials:

Strong oxidizing agents, sodium hypochlorite, sodium nitrate, calcium hypochlorite, nitrosyl perchlorate, gallium perchlorate, diphosphorus pentachloride.

Hazardous Decomposition Products:

Carbon monoxide, oxides of nitrogen, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 57-13-6: YR6250000 LD50/LC50:

CAS# 57-13-6: Oral, mouse: LD50 = 11 gm/kg; Oral, rat: LD50 = 8471 mg/kg.

Carcinogenicity:

Urea - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

Bacteria: *Phytobacterium phosphoreum*: EC50 = 23914 mg/L; 5 min; Microtox test
If released to water, urea can degrade readily through biotic hydrolysis as demonstrated by various screening studies. The presence of naturally-occurring phytoplankton increases the degradation rate because phytoplankton use urea as a nitrogen source and because urea is decomposed by phytoplankton photosynthesis. In phytoplankton-rich waters, degradation occurs much faster in sunlight than in the dark. Abiotic hydrolysis of urea occurs very slowly in relation to biotic hydrolysis.

Section 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations

Section 14 - TRANSPORT INFORMATION

IATA

Not regulated as a hazardous material.

IMO

TEL:0086-531-58775259

FAX:0086-531-86510300

ADD: THIRD FLOOR SILVERY LOTUS JINAN HI-TECH DEVELOPMENT ZONE, SHANDONG PROVINCE, CHINA



JINAN ZZ INTERNATIONAL TRADE CO.,LTD

Zhang&Zhou

Not regulated as a hazardous material.

RID/ADR

Not regulated as a hazardous material.

Section 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available.

Risk Phrases:

Safety Phrases:

WGK (Water Danger/Protection)

CAS# 57-13-6: 1

Canada

CAS# 57-13-6 is listed on Canada's DSL List.

CAS# 57-13-6 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 57-13-6 is listed on the TSCA inventory.

Section 16 - OTHER INFORMATION

This product is not radioactive. The data given for this product are those of the corresponding unlabelled product indicated in Section 2, unless specifically indicated otherwise. Safety data for the labelled compounds are generally unavailable but the hazards and properties are assumed to be similar or identical to those of the unlabelled compounds. While the information set forth is believed to be accurate, C/D/N ISOTOPES INC. extends no warranties with respect hereto and disclaims all liabilities from reliance thereon. All judgements as to the suitability of the data presented with respect to the use of this product are the responsibility of the purchaser and intended user.

TEL:0086-531-58775259

FAX:0086-531-86510300

ADD: THIRD FLOOR SILVERY LOTUS JINAN HI-TECH DEVELOP MET
ZONE,SHANDONG PROVINCE, CHINA