



MATERIAL SAFETY DATA SHEET

Urea

Section 1 - Chemical Product and Company Identification

MSDS Name: Urea

Catalog Numbers: BPE169-10, BPE169-212, BPE169-500, U/0450/53, U/0450/60, U/0450/63, U/0500/50, U/0500/53, U/0500/63, U/0500/65, U/0500/70, U/0500/71, U/P610/50, U/P610/60

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

Company Identification: Fisher Scientific UK
Bishop Meadow Road, Loughborough
Leics. LE11 5RG

For information in Europe, call: (01509) 231166

Emergency Number, Europe: 01509 231166

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
57-13-6	Urea	>98	200-315-5

Hazard Symbols: None listed

Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Not available

Potential Health Effects

Eye: May cause eye irritation. Causes redness and pain.

Skin: May cause skin irritation. Causes redness and pain. May be harmful if absorbed through the skin.

Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause cardiac disturbances. May be harmful if swallowed.

Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.

Chronic: Prolonged or repeated exposure may cause adverse reproductive effects.

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

Ingestion: Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

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.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical 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. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Avoid breathing dust, mist, or vapor. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Storage: Store in a cool, dry place. Store in a tightly closed container.

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:

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: Solid

Color: white

Odor: ammonia-like

pH: 7.5-9.5 (10% aq. solution)

Vapor Pressure: 1.25 mm Hg @ 25 deg C

Viscosity: Not available

Boiling Point: decomposes

Freezing/Melting Point: 131-135 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: 60.06

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, dust generation, temperatures above 130°C.

Incompatibilities with Other Materials Strong oxidizing agents, dichromates, liquid chlorine, nitrates, permanganates, sodium hypochlorite, sodium nitrate, calcium hypochlorite, chromyl chloride, nitrosyl perchlorate.

Hazardous Decomposition Products Carbon monoxide, oxides of nitrogen, carbon dioxide, ammonia.

Hazardous Polymerization Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 57-13-6: YR6250000

LD50/LC50: RTECS:
CAS# 57-13-6: Oral, mouse: LD50 = 11 gm/kg;
Oral, rat: LD50 = 8471 mg/kg;

Carcinogenicity: Urea - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

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

Other: Do not empty into drains.

Section 13 - Disposal Considerations

Products considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local authority or advice. Empty containers must be decontaminated before returning for recycling.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	Not Regulated.	Not Regulated.	Not Regulated.
Hazard Class:			
UN Number:			
Packing Group:			

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 57-13-6: 1

Canada

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

US Federal

TSCA

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

Section 16 - Other Information

MSDS Creation Date: 5/28/1999

Revision #7 Date 6/29/2007

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
