



Material Safety Data Sheet (MSDS) of Urea

1. Product Identification:

- 1.1 Product Name: Urea
- 1.2 Chemical Name: Carbamide
- 1.3 Product Code: URE-456
- 1.4 Manufacturer's Name: ABC Chemicals Inc.
- 1.5 Address: 456 Industrial Avenue, Cityville, State, Country
- 1.6 Emergency Contact: 24-Hour Emergency Hotline - 1-800-555-7890

2. Composition/Information on Ingredients:

- 2.1 Chemical Formula: $\text{CH}_4\text{N}_2\text{O}$
- 2.2 CAS Number: 57-13-6
- 2.3 Synonyms: Carbamide, Carbonyl Diamide

3. Hazards Identification:

- 3.1 Classification: Not classified as hazardous under standard regulations.
- 3.2 Potential Health Effects:
 - 3.2.1 Eye Contact: May cause mild irritation. Flush eyes with water for at least 15 minutes, and seek medical attention if irritation persists.
 - 3.2.2 Skin Contact: Prolonged or repeated exposure may cause dryness or irritation. Wash affected area with soap and water.
 - 3.2.3 Inhalation: Inhalation of dust may cause respiratory irritation. Move to fresh air. If breathing difficulties persist, seek medical attention.
 - 3.2.4 Ingestion: Low toxicity. Ingestion is unlikely to cause harm. Seek medical attention if large quantities are ingested.

4. First Aid Measures:

- 4.1 Eye Contact: Flush eyes with water for at least 15 minutes. Seek medical attention if irritation persists.
- 4.2 Skin Contact: Wash affected area with soap and water. Seek medical attention if irritation develops.
- 4.3 Inhalation: Move to fresh air. If breathing difficulties persist, seek medical attention.
- 4.4 Ingestion: Seek medical attention if large quantities are ingested. Rinse mouth with water.



5. Fire-fighting Measures:

5.1 Suitable Extinguishing Media: Use water spray, foam, dry chemical, or carbon dioxide.

5.2 Specific Hazards: None known.

5.3 Protective Equipment: Wear appropriate protective clothing and self-contained breathing apparatus if needed.

6. Accidental Release Measures:

6.1 Personal Precautions: Wear appropriate protective equipment. Avoid inhalation of dust. Sweep up and collect spilled material for disposal.

6.2 Environmental Precautions: Prevent product from entering drains or water sources.

6.3 Cleanup Procedures: Use absorbent material to collect spilled substance. Dispose of in accordance with local regulations.

7. Handling and Storage:

7.1 Handling: Avoid prolonged or repeated skin contact. Use in well-ventilated areas.

7.2 Storage: Store in a cool, dry place away from incompatible materials.

8. Exposure Controls/Personal Protection:

8.1 Eye Protection: Safety glasses or goggles.

8.2 Skin Protection: Wear protective gloves.

8.3 Respiratory Protection: Use adequate ventilation. In case of dust, use respiratory protection.

9. Physical and Chemical Properties:

9.1 Appearance: White, crystalline solid

9.2 Odor: Odorless

9.3 Melting Point/Freezing Point: 133-135°C (271-275°F)

9.4 Boiling Point: Decomposes

9.5 Flash Point: Not applicable

9.6 Solubility in Water: Soluble

10. Stability and Reactivity:

10.1 Stability: Stable under normal conditions.

10.2 Incompatibility: Avoid contact with strong acids and bases.

10.3 Hazardous Decomposition Products: Ammonia, carbon dioxide.

11. Toxicological Information:

11.1 Acute Toxicity: LD50 > 15,000 mg/kg (oral, rat)



12. Ecological Information:

12.1 Ecotoxicity: Low environmental hazard. Avoid release into the environment.

13. Disposal Considerations:

13.1 Dispose of in accordance with local, state, and federal regulations.

14 Transport Information:

14.1 Not regulated for transport.

15. Regulatory Information:

15.1 This product is in compliance with relevant regulations.

16. Other Information:

16.1 This MSDS is intended to provide a summary of the properties and potential hazards of the product. It is not intended to be comprehensive. Users should ensure that they have all relevant information before handling the product.