

MATERIAL SAFETY DATA SHEET (MSDS) – UREA

Section 1: Product and Company Identification

• Product Name: Urea

• Chemical Formula: CO(NH₂)₂

• CAS Number: 57-13-6

• Molecular Weight: 60.06 g/mol

Intended Use: Fertilizer, chemical reagent, feed additive, and industrial applications.

• Supplier: Basekim

Section 2: Composition / Information on Ingredients

• Chemical Name: Urea

• Synonyms: Carbamide, Carbonyl Diamide

• **Purity:** ≥ 99%

• Hazardous Components: None

Section 3: Hazards Identification

- Hazard Classification: Non-hazardous substance
- GHS Classification: Not classified as hazardous
- Health Hazards:
 - May cause mild irritation to eyes and skin.
 - Inhalation of dust may cause respiratory irritation.
 - Ingestion in large amounts may cause gastrointestinal discomfort.
- Environmental Hazards: Can contribute to eutrophication if released in water bodies in large quantities.

Section 4: First Aid Measures

- Inhalation: Remove to fresh air. Seek medical attention if symptoms persist.
- Skin Contact: Wash with soap and water. Seek medical attention if irritation occurs.
- Eye Contact: Rinse eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.
- Ingestion: Rinse mouth with water. If symptoms occur, seek medical attention.

Section 5: Firefighting Measures

- Flash Point: Not applicable
- Flammability: Non-flammable
- Suitable Extinguishing Media: Water spray, foam, dry chemical, or CO₂.
- Special Firefighting Procedures: Firefighters should wear protective gear and selfcontained breathing apparatus.
- Hazardous Combustion Products: May produce ammonia, carbon dioxide, and nitrogen oxides when heated to decomposition.



00903125147081



Section 6: Accidental Release Measures

- **Personal Precautions:** Use protective gloves and goggles. Avoid creating dust.
- **Environmental Precautions:** Prevent large spills from entering waterways.
- Cleanup Methods: Sweep up and collect in suitable containers for disposal. Wash area with water.

Section 7: Handling and Storage

- Handling:
 - Avoid inhalation of dust.
 - Use in a well-ventilated area.
 - Avoid prolonged contact with skin. 0
- Storage:
 - 0 Store in a cool, dry, and well-ventilated place.
 - Keep away from moisture, acids, and oxidizing agents.
 - Store in tightly closed containers.

Section 8: Exposure Controls / Personal Protection

- Occupational Exposure Limits: No established exposure limits.
- **Engineering Controls:** Use local exhaust ventilation if necessary.
- Personal Protective Equipment (PPE):
 - **Respiratory Protection:** Dust mask if airborne dust is present.
 - **Eye Protection:** Safety goggles.
 - **Skin Protection:** Protective gloves.
 - Hygiene Measures: Wash hands after handling.

Section 9: Physical and Chemical Properties

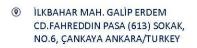
- **Appearance:** White crystalline solid
- **Odor:** Odorless
- Melting Point: 132 135°C
- **Boiling Point:** Decomposes before boiling
- **Solubility in Water:** Soluble (108 g/L at 20°C)
- Density: 1.32 g/cm³
- pH (10% solution): 7.2 7.5

Section 10: Stability and Reactivity

- Stability: Stable under normal conditions.
- **Incompatible Materials:** Strong acids, oxidizers, and nitrates.
- Hazardous Decomposition Products: Ammonia, carbon dioxide, nitrogen oxides.
- Polymerization: Will not occur.

Section 11: Toxicological Information

Acute Toxicity:











- Oral (LD50 Rat): 8,471 mg/kg (low toxicity)
- Dermal (LD50 Rabbit): No significant toxicity
- Carcinogenicity: Not classified as a carcinogen.
- Reproductive Toxicity: No known effects.
- Mutagenicity: No known effects.

Section 12: Ecological Information

- **Environmental Impact:** Can contribute to water eutrophication if released in large quantities.
- **Bioaccumulation:** Low potential.
- Degradability: Readily biodegradable.

Section 13: Disposal Considerations

- Waste Disposal: Dispose of according to local regulations.
- Packaging Disposal: Recycle or dispose of in an approved facility.

Section 14: Transport Information

- **UN Number:** Not regulated
- Hazard Class: Not classified
- Packing Group: Not applicable
- Transport Labels: None required

Section 15: Regulatory Information

- GHS Classification: Not classified as hazardous
- TSCA Status: Listed
- **REACH Status: Registered**
- **OSHA Hazards:** None

Section 16: Other Information

- **NFPA Ratings:**
 - **Health:** 1 (Slight hazard)
 - Flammability: 0 (Non-flammable)
 - **Reactivity:** 0 (Stable)
- Revision Date: March 2025