



SAFETY DATA SHEET (SDS)

SECTION 1: Identification

Product Name: Automotive Urea (AUS 32 Grade Feedstock)

Synonyms: DEF Grade Urea, AdBlue® Grade Urea, Automotive Grade Urea

Recommended Use: Production of Diesel Exhaust Fluid (DEF), AdBlue®, AUS 32 solutions for SCR emission control systems.

Supplier: Basekim Kimyasal Ürünler Ltd.

Emergency Telephone: Local emergency services

SECTION 2: Hazard Identification

GHS Classification

Not classified as hazardous according to GHS criteria.

Signal Word

None

Hazard Pictograms

None required

Hazard Statements

- Product is not considered hazardous under normal conditions of use.
- Dust may cause mild mechanical irritation to eyes, skin, and respiratory tract.
- Large ingestion may cause gastrointestinal discomfort.
- Thermal decomposition may generate ammonia, isocyanic acid, and nitrogen oxides.

Environmental Hazards

Large releases may contribute to eutrophication of surface waters.



SECTION 3: Composition / Information on Ingredients

Component	CAS Number	Concentration
Urea	57-13-6	≥99.6%
Biuret	Not assigned	≤0.3%
Moisture	Not assigned	≤0.5%
Trace impurities	Proprietary	ISO 22241 limits

Automotive grade urea is manufactured to ISO 22241 purity requirements for DEF production.

SECTION 4: First Aid Measures

Eye Contact

Flush cautiously with water for at least 15 minutes. Remove contact lenses if present.

Skin Contact

Wash with soap and water.

Inhalation

Move to fresh air. Seek medical attention if irritation persists.

Ingestion

Rinse mouth with water. Drink water if conscious. Obtain medical advice if large amounts are swallowed.

SECTION 5: Fire-Fighting Measures

Suitable Extinguishing Media

- Water spray
- Foam
- Dry chemical
- Carbon dioxide



Specific Hazards

Product is not combustible. Thermal decomposition may produce:

- Ammonia
- Nitrogen oxides (NO_x)
- Isocyanic acid
- Carbon oxides

Protective Equipment

Use self-contained breathing apparatus in fire situations.

SECTION 6: Accidental Release Measures

Personal Precautions

Avoid dust generation.

Environmental Precautions

Prevent large quantities from entering waterways.

Cleanup Methods

Sweep or vacuum material into suitable containers for reuse or disposal.

SECTION 7: Handling and Storage

Handling

- Avoid generating dust.
- Use good industrial hygiene practices.
- Keep containers closed when not in use.

Storage

- Store in a cool, dry, well-ventilated area.
- Protect from moisture.
- Avoid contamination with oils, fuels, or chemicals.



SECTION 8: Exposure Controls / Personal Protection

Occupational Exposure Limits

No specific exposure limits established for urea.

Engineering Controls

Provide adequate ventilation.

PPE

Eye Protection

Safety glasses.

Hand Protection

Protective gloves recommended.

Respiratory Protection

Not normally required; use dust mask if airborne dust is generated.

SECTION 9: Physical and Chemical Properties

Property	Value
Appearance	White prilled/granular solid
Odor	Odorless
Color	White
pH	Not applicable (solid)
Melting Point	~133°C
Solubility	Highly soluble in water
Density	~1.32 g/cm ³
Flash Point	Not applicable
Flammability	Non-flammable

Automotive-grade urea is supplied as white, odorless prills for DEF production.



SECTION 10: Stability and Reactivity

Chemical Stability

Stable under recommended storage conditions.

Conditions to Avoid

- Excessive heat
- Moisture contamination

Incompatible Materials

- Strong oxidizers
- Strong acids
- Nitrites

Hazardous Decomposition Products

- Ammonia
- Nitrogen oxides
- Isocyanic acid

SECTION 11: Toxicological Information

Acute Toxicity

Low toxicity.

Skin Corrosion/Irritation

Not expected to cause significant irritation.

Eye Effects

Dust may cause temporary irritation.

Respiratory Effects

Dust may cause mechanical irritation.



Carcinogenicity

Not classified as carcinogenic.

SECTION 12: Ecological Information

Ecotoxicity

Low acute toxicity to aquatic organisms.

Persistence and Degradability

Readily biodegradable through natural nitrogen cycle processes.

Environmental Effects

Excessive releases may contribute to nutrient enrichment and algal growth in aquatic environments.

SECTION 13: Disposal Considerations

Dispose in accordance with local regulations.

Small quantities may be used according to intended industrial application where permitted.

Avoid discharge of large quantities to waterways.

SECTION 14: Transport Information

UN Number

Not regulated

Proper Shipping Name

Not regulated



Hazard Class

Not regulated

Packing Group

Not applicable

Marine Pollutant

No

Automotive-grade urea is generally transported as a non-dangerous good.

SECTION 15: Regulatory Information

- ISO 22241 compliant automotive-grade urea specifications.
- Not classified as hazardous under GHS.

SECTION 16: Other Information

Typical Quality Parameters (ISO 22241)

Parameter	Specification
Nitrogen	≥46%
Biuret	≤0.3%
Moisture	≤0.5%
Aldehydes	≤5 mg/kg
Insoluble Matter	≤20 mg/kg
Heavy Metals	≤0.5 ppm each

Disclaimer: This draft is based on publicly available Basekim product information and general urea SDS data. It should be reviewed, completed, and approved by the manufacturer before regulatory or commercial use.