



# Safety Data Sheet (SDS) – AdBlue (AUS 32)

**Product Name:** AdBlue® / AUS 32 (Diesel Exhaust Fluid, DEF)

**Synonyms:** DEF, Aqueous Urea Solution 32.5%

**CAS Number (urea):** 57-13-6

**EC Number:** 200-315-5

**REACH Registration:** Exempted mixture (AUS 32)

**Intended Use:** NOx reduction agent for diesel engines equipped with SCR systems

**Supplier:** Basekim Kimyasal Ürünler LTD.

## Section 1 – Identification

- **Product Identifier:** AUS 32 (AdBlue® / DEF)
- **Recommended Use:** Emission reduction additive for SCR diesel engines.
- **Manufacturer / Supplier:** Basekim Kimyasal Ürünler LTD, Ankara – Turkey
- **Emergency Telephone:** Local emergency number / 112

## Section 2 – Hazard Identification

- **Classification (Reg. (EC) 1272/2008):** *Not classified as hazardous*
- **GHS Label Elements:** Not applicable
- **Hazard Statements:**
  - Not considered hazardous under normal use.
  - May cause mild skin or eye irritation on prolonged contact.
  - Decomposition at high temperature may release ammonia or nitrogen oxides (NOx).
- **Precautionary Statements:**
  - Avoid contamination of AdBlue with fuel, oil, or other chemicals.



- Prevent contact with copper, brass, mild steel, and certain aluminum alloys.

## Section 3 – Composition / Information on Ingredients

- **Urea (NH<sub>2</sub>CONH<sub>2</sub>)** – 32.5% w/w  
CAS: 57-13-6 | EC: 200-315-5
- **Deionized Water** – 67.5% w/w  
CAS: 7732-18-5 | EC: 231-791-2
- **Impurities:** Biuret ≤0.3%, metals ≤0.2 mg/kg (per ISO 22241)

## Section 4 – First Aid Measures

- **Eye Contact:** Rinse cautiously with water for at least 15 minutes. Seek medical advice if irritation persists.
- **Skin Contact:** Remove contaminated clothing. Wash skin with water. If irritation occurs, get medical attention.
- **Inhalation:** Move victim to fresh air. If breathing problems persist, seek medical help.
- **Ingestion:** Rinse mouth with water. Do not induce vomiting. Seek medical advice immediately.
- **Notes to Physician:** Treat symptomatically. No specific antidote known.

## Section 5 – Firefighting Measures

- **Flammability:** Not flammable.
- **Suitable Extinguishing Media:** Water spray, foam, dry powder, CO<sub>2</sub> (for surrounding fire).
- **Hazards in Fire:** Thermal decomposition may release ammonia and NO<sub>x</sub> gases.



- **Protective Equipment:** Firefighters should wear self-contained breathing apparatus and full protective gear.

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## Section 6 – Accidental Release Measures

- Contain spill with non-combustible absorbent (sand, earth).
- Prevent entry into drains and waterways.
- Clean area with water.
- Wear protective gloves and goggles during cleanup.

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## Section 7 – Handling and Storage

- **Handling:**
  - Use dedicated AdBlue equipment (HDPE or stainless steel 304/316).
  - Avoid contamination with fuels, oils, or chemicals.
  - Keep containers tightly closed when not in use.
- **Storage:**
  - Store in a cool, well-ventilated area.
  - Keep between **-5°C and +25°C**.
  - Avoid direct sunlight and high temperatures.
  - Do not store in copper, brass, zinc, or mild steel containers.

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## Section 8 – Exposure Controls / Personal Protection



- **Occupational Exposure Limits:** Not established for urea in this mixture.
- **Protective Equipment:**
  - Eye: Safety glasses or face shield if splashing possible.
  - Skin: Protective gloves (nitrile/PVC).
  - Respiratory: Not required under normal use. If aerosols present, use suitable filter.
  - Hygiene: Wash hands after handling. Do not eat or smoke during use.

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## Section 9 – Physical and Chemical Properties

- Appearance: Clear, colorless liquid
- Odor: Slight ammonia-like odor
- pH: 9.0 – 9.5 at 20°C
- Freezing Point: -11°C
- Boiling Point: ~100°C
- Density: 1.087 – 1.093 g/cm<sup>3</sup> (at 20°C)
- Solubility: Fully soluble in water
- Flash Point: Not applicable
- VOC Content: None

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## Section 10 – Stability and Reactivity

- **Stability:** Stable under normal storage conditions.
- **Reactivity:** Non-reactive under normal conditions.
- **Conditions to Avoid:** High temperatures, contamination with strong oxidizers or acids.
- **Hazardous Decomposition Products:** Ammonia, NOx.





## Section 11 – Toxicological Information

- **Acute Toxicity (Urea):** LD50 (oral, rat) ~ 8471 mg/kg
- **Skin Contact:** Non-irritant to slightly irritating.
- **Eye Contact:** May cause mild irritation.
- **Inhalation:** Low risk at ambient temperature. Ammonia vapors from heated product may be irritating.
- **Sensitization / Carcinogenicity:** Not classified.

## Section 12 – Ecological Information

- **Biodegradability:** Urea is readily biodegradable.
- **Ecotoxicity:** Not expected to be harmful in normal use.
- **Precautions:** Large spills may cause eutrophication in water bodies.
- **Persistence and Mobility:** Fully soluble in water.

## Section 13 – Disposal Considerations

- Dispose of according to local and national regulations.
- Do not release into surface water or sewer systems.
- Packaging: Rinse containers and recycle if possible.

## Section 14 – Transport Information



- **UN Number:** Not classified as hazardous for transport.
- **ADR / RID / IMDG / IATA:** Not regulated.
- **Proper Shipping Name:** AUS 32 (AdBlue / DEF)
- **Packaging Group:** Not applicable

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## Section 15 – Regulatory Information

- Conforms to **ISO 22241** specifications.
- Not classified as hazardous under EU CLP, REACH, or OSHA HazCom standards.
- VDA licensed product for SCR systems.

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## Section 16 – Other Information

- This SDS was prepared in accordance with Regulation (EC) No. 1907/2006 (REACH) and CLP (EC 1272/2008).
- The information is based on current knowledge and describes the product only in terms of safety. It does not guarantee any specific product features.