AUS 32 UREA SOLUTION

Safety Data Sheet

Prepared in the 16-section format of Annex II to the Turkish REACH Regulation (KKDIK), as amended
Version: 2.0 Revision date: 21.07.2026 Status: APPROVED FOR RELEASE

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	Mixture
Trade name	LIMAXBLUE AUS 32 UREA SOLUTION
Product description	Aqueous urea solution, nominally 32.5 % by mass (AUS 32).

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use	NOx reduction agent for Selective Catalytic Reduction (SCR) systems in diesel-powered vehicles and equipment.
Uses advised against	Do not add to diesel fuel. Do not dilute, mix with additives, or use outside an approved SCR system.

1.3. Details of the supplier of the safety data sheet

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1.4. Emergency telephone number

Country	Organisation	Emergency number	Availability
Turkiye	National Poison Consultation Centre (UZEM)	114	Public and medical poisoning advice

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified as hazardous according to the Turkish SEA Regulation, based on the available information for the mixture.

2.2. Label elements

Hazard pictograms	None
Signal word	None
Hazard statements	None required
Supplemental information	Avoid contamination of the product and the environment. Observe good occupational hygiene.

2.3. Other hazards

The mixture is not expected to meet PBT or vPvB criteria. No endocrine-disrupting properties are known for components at reportable concentrations. Spilled product may make surfaces slippery. Heating may release ammonia.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable - the product is a mixture.

3.2. Mixtures

Substance	Identifiers	Concentration	SEA classification
Water	CAS 7732-18-5 | EC 231-791-2	65-70 %	Not classified
Urea	CAS 57-13-6 | EC 200-315-5	30-35 % (nominal AUS 32: 32.5 %)	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Remove contaminated clothing. Seek medical advice if symptoms persist.
Inhalation	Move the person to fresh air. Keep comfortable for breathing. Obtain medical advice if symptoms occur.
Skin contact	Wash with plenty of water. If irritation occurs, obtain medical advice.
Eye contact	Rinse cautiously with clean water for several minutes. Remove contact lenses if easy to do. Continue rinsing. Seek advice if irritation persists.
Ingestion	Rinse mouth. Do not induce vomiting. Contact a poison centre or physician if unwell.

4.2. Most important symptoms and effects, both acute and delayed

No significant effects are expected under normal conditions of use. Prolonged contact may cause mild irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable media	Use extinguishing media appropriate for the surrounding fire: water spray, dry chemical, foam or carbon dioxide.
Unsuitable media	No specific restriction known for the product itself.

5.2. Special hazards arising from the substance or mixture

The product is not combustible. Heating or fire may generate ammonia, nitrogen oxides and carbon oxides.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing where decomposition products may be present. Prevent contaminated fire water from entering drains or surface waters.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ventilate the area. Avoid eye and prolonged skin contact. Wear suitable gloves and eye protection. Caution: spilled liquid may be slippery.

6.2. Environmental precautions

Prevent uncontrolled discharge to soil, drains and surface waters. Large releases may contribute nutrients to water and disturb aquatic systems.

6.3. Methods and material for containment and cleaning up

Stop the leak if safe. Contain and collect with non-combustible absorbent material or pump into a clean, compatible container. Wash small residues with water only where permitted. Dispose of recovered material in accordance with local requirements.

6.4. Reference to other sections

See Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use clean equipment dedicated to AUS 32. Prevent contamination by fuels, oils, dust, tap water and other chemicals. Do not eat, drink or smoke while handling. Wash hands after use.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Keep tightly closed in a cool, clean, well-ventilated area protected from direct sunlight and excessive heat. Recommended working storage range in the source SDS: 10-30 °C.
Compatible materials	Austenitic stainless steel and suitable plastics such as HDPE, PP and compatible fluoropolymers, subject to equipment supplier confirmation.
Materials to avoid	Copper and copper alloys, zinc/galvanised materials, carbon steel and other materials that may corrode or contaminate AUS 32. Keep away from strong oxidising agents, nitrites, strong acids and strong alkalis.
Freezing	AUS 32 freezes at approximately -11 °C. Frozen product may be thawed gently without loss of quality if contamination and local overheating are avoided.

7.3. Specific end use(s)

NOx reduction agent for approved SCR systems. Follow ISO 22241-3:2017 and the vehicle/equipment manufacturer's instructions.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No occupational exposure limit has been established for the mixture or its non-hazardous components under normal use. Control ammonia if generated by heating or decomposition in accordance with applicable workplace limits.

8.2. Exposure controls

Engineering controls	Provide adequate general ventilation. Use local exhaust where mist or ammonia may be generated.
Eye/face protection	Safety glasses; use chemical splash goggles where splashing is likely.
Hand protection	Suitable chemical-resistant protective gloves for prolonged or repeated contact.
Skin protection	Normal work clothing; remove and wash contaminated clothing.
Respiratory protection	Not normally required. Use appropriate respiratory protection if ventilation is inadequate or decomposition fumes are present.
Environmental controls	Avoid uncontrolled release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Colour	Colourless, clear
Odour	Odourless to slight ammonia odour
Melting/freezing point	Approximately -11 °C
Boiling point/range	Approximately 106-110 °C (source SDS); decomposition may occur on heating
Flammability	Not flammable
Lower/upper explosion limits	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	No specific mixture value available; ammonia may evolve on heating
pH	9.0-9.5
Kinematic viscosity	No reliable mixture value available
Solubility	Completely miscible/soluble in water
Partition coefficient n-octanol/water	Not determined for the mixture
Vapour pressure	Not determined for the mixture; water-rich solution
Density at 20 °C	1.087-1.093 g/cm3 (ISO 22241-1 quality range)
Relative vapour density	Not determined
Particle characteristics	Not applicable to a liquid

9.2. Other information

Urea content	31.8-33.2 % by mass (ISO 22241-1 quality range)
Refractive index at 20 °C	1.3814-1.3843 (ISO 22241-1 quality range)
Explosive properties	Not explosive
Oxidising properties	Not classified as oxidising

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reactivity is expected under recommended conditions of handling and storage.

10.2. Chemical stability
Stable under recommended conditions. Product quality may deteriorate through heat, prolonged sunlight exposure or contamination.

10.3. Possibility of hazardous reactions
No dangerous polymerisation is expected. Contact with hypochlorites or nitrites may generate hazardous reaction products.

10.4. Conditions to avoid
Excessive heat, prolonged direct sunlight, evaporation, contamination and incompatible construction materials.

10.5. Incompatible materials
Strong oxidising agents, hypochlorites, nitrites, strong acids and alkalis; copper/copper alloys, zinc/galvanised materials, carbon steel and other contaminating or corroding materials.

10.6. Hazardous decomposition products
Ammonia, nitrogen oxides and carbon oxides may be released on strong heating or in a fire.

SECTION 11: Toxicological information

11.1. Information on hazard classes

Acute toxicity	Not classified based on available component and mixture information.
Skin corrosion/irritation	Not classified. Prolonged contact may cause mild irritation.
Serious eye damage/irritation	Not classified. Direct contact may cause transient irritation.
Respiratory or skin sensitisation	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified.
Reproductive toxicity	Not classified.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Aspiration hazard	Not classified; water-based mixture.

11.2. Information on other hazards
No endocrine-disrupting effects are known for components at reportable concentrations based on available information. Symptoms following significant ingestion may include gastrointestinal discomfort.

SECTION 12: Ecological information

12.1. Toxicity
Not classified as hazardous to the aquatic environment. Large releases may increase nitrogen loading and adversely affect receiving waters.

12.2. Persistence and degradability
Urea is expected to be readily transformed in the environment. No complete test data are available for the mixture.

12.3. Bioaccumulative potential
Low bioaccumulation potential is expected.

12.4. Mobility in soil
The product is water soluble and expected to be mobile in soil.

12.5. Results of PBT and vPvB assessment
The mixture is not expected to meet PBT or vPvB criteria based on available component information.

12.6. Endocrine disrupting properties
No endocrine-disrupting properties are known for components at reportable concentrations based on available information.

12.7. Other adverse effects
Avoid uncontrolled release. Nutrient enrichment may contribute to eutrophication.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Recover or recycle uncontaminated product where feasible. Dispose of product, contaminated absorbent and packaging through an authorised waste contractor in accordance with local requirements. Do not discharge large quantities to drains or surface waters. Waste classification must be assigned by the waste producer according to the source and condition of the waste.

SECTION 14: Transport information

The product is not regulated as dangerous goods under ADR, RID, ADN, IMDG or IATA requirements.

14.1 UN number or ID number	Not applicable
14.2 UN proper shipping name	Not applicable
14.3 Transport hazard class(es)	Not applicable
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not classified as environmentally hazardous; not a marine pollutant
14.6 Special precautions for user	Protect from contamination, excessive heat and incompatible materials. Secure containers against damage.
14.7 Maritime transport in bulk according to IMO instruments	Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Turkiye: Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (KKDIK), Official Gazette No. 30105 dated 23 June 2017, as amended; Regulation on Classification, Labelling and Packaging of Substances and Mixtures (SEA), Official Gazette No. 28848 dated 11 December 2013, as amended. This English document follows the 16-section structure of Annex II to KKDIK. The regulatory references and language were included in the certified SDS author's release review.

Technical references: ISO 22241-1:2019 and ISO 22241-1:2019/Amd 1:2019 (quality requirements); ISO 22241-2:2019 (test methods); ISO 22241-3:2017 (handling, transportation and storage).

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the mixture as a whole.

SECTION 16: Other information

16.1. Revision history

Version	Date	Summary of changes
1.0	21.08.2020	Initial issue.
Interim file	21.07.2026	Supplier address, displayed issue date and certificate validity date updated; technical text otherwise substantially unchanged.
2.0	21.07.2026	Full technical and language revision; corrected use description and storage text; updated supplier contact details; added ISO 22241 references, modernised Sections 9-15 and added revision control. Reviewed and approved by the certified SDS author.

16.2. Abbreviations and references

AUS 32	Aqueous Urea Solution containing nominally 32.5 % urea by mass
SCR	Selective Catalytic Reduction
SEA	Turkish Regulation on Classification, Labelling and Packaging of Substances and Mixtures
KKDIK	Turkish Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
PBT / vPvB	Persistent, Bioaccumulative and Toxic / very Persistent and very Bioaccumulative
Key references	Supplier SDS Version 1.0; ISO 22241-1:2019 + Amd 1:2019; ISO 22241-2:2019; ISO 22241-3:2017

16.3. Certified SDS author and approval control

Name	Irem BEKTAS KART
Certificate number	GBF-A-0-2732
Certificate valid until	09.02.2027 (validity confirmed by the document owner)
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Review status	APPROVED FOR RELEASE
Certified author approval	Approval confirmed by the document owner; no signature image embedded

16.4. Disclaimer

The information in this safety data sheet is based on the source SDS, current supplier information and the technical references listed above. It describes the product for health, safety and environmental purposes and is not a product specification or batch certificate. Conditions of handling, storage, use and disposal are outside the supplier's control. This Version 2.0 document has been reviewed and approved for release by the certified SDS author.