



MSDS Material Safety Data Sheet

AdBlue®

AUS 32 Aqueous Urea Solution 32.5%
NOx-Reducing Agent AUS 32
Automotive Grade Urea (AGU)
Diesel Exhaust Fluid (DEF)

*Very pure NOx-reduction agent for Diesel engines equipped with SCR catalysts.
Produced from a fully integrated and dedicated production plant.*

1. SUBSTANCE/PREPARATION AND COMPANY IDENTIFICATION

AdBlue

Use: Chemical

Company:

BLUEBASIC SRL

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2. HAZARD IDENTIFICATION

No special hazards have to be mentioned.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

urea (Content (W/W): 32.5 %), water (Content (W/W): 67.5 %)

® = Registered trademark of
Verband der Automobilindustri



4. FIRST-AID MEASURES

General advice: Remove contaminated clothing.

If inhaled: Keep patient calm, remove to fresh air.

On skin contact: Wash thoroughly with soap and water.

On contact with eyes: Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion: Rinse mouth and then drink plenty of water.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water, carbon dioxide, dry powder, sand

Specific hazards: Harmful vapours

The substances/groups of substances mentioned can be released in case of fire: *ammonia*

Special protective equipment: Wear a self-contained breathing apparatus.

Further information: Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

Methods for cleaning up or taking up:

For small amounts: Rinse away with water. Dispose of absorbed material in accordance with regulations.

For large amounts: Rinse away with water. Dispose of absorbed material in accordance with regulations.

7. HANDLING AND STORAGE

Handling

No special measures necessary provided product is used correctly.

Protection against fire and explosion: No special precautions necessary.

Storage

Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE), Stainless steel 1.4301 (V2), Stainless steel 1.4401

Unsuitable materials for containers: paper, iron, tin (tinplate), Copper, aluminum, glass, brass, zinc coated, zinc

Storage stability: Storage temperature: -5 °C --- 30 °C

Protect from temperatures below: -11 °C

The packed product is not damaged by low temperatures or by frost.

Protect from temperatures above: 35 °C

It is not necessary to protect the packed product against exceeding the temperature indicated.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

BlueBasic MSTs according to Regulation (EC) No.1907/2006

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Personal protective equipment

Respiratory protection: Wear respiratory protection if ventilation is inadequate. Gas filter for gases/vapours of inorganic compounds (e.g. EN 14387 Type B)

Hand protection:

Chemical resistant protective gloves (EN 374)
natural rubber/natural latex (NR) - 0.5 mm coating thickness
chloroprene rubber (CR) - 0.5 mm coating thickness
nitrile rubber (NBR) - 0.4 mm coating thickness
butyl rubber (butyl) - 0.7 mm coating thickness
fluoroelastomer (FKM) - 0.7 mm coating thickness
polyvinylchloride (PVC) - 0.7 mm coating thickness

Eye protection: Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

Body protection: rubber boots with protection equipment

General safety and hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: liquid

Colour: colourless

Odour: faint specific odour, ammonia-like

pH value: 9 - 10 (DIN ISO 976)

solidification temperature: -11 °C

Boiling point: approx. 100 °C (1,013 bar)

Flammability: does not ignite

Ignition temperature: Not applicable

Self heating ability: It is not a substance capable of spontaneous heating.

Explosion hazard: not explosive

Fire promoting properties: not fire-propagating

Vapour pressure: 23 mbar (20 °C)

Density: 1.085 - 1.095 kg/m³ (20 °C) (ISO 2811-3)

Solubility in water: soluble (15 °C)

Miscibility with water: (15 °C) completely (e.g. >=90%)



10. STABILITY AND REACTIVITY

Substances to avoid: nitrites, nitrates, strong oxidizing agents

Corrosion to metals: Corrosive effect on non-ferrous metals

Hazardous reactions: The product is chemically stable.

Hazardous decomposition products: ammonia

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 rat (oral): 14,300 mg/kg

Irritation

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes.

Primary skin irritation rabbit: non-irritant

Primary irritations of the mucous membrane rabbit: non-irritant

Other relevant toxicity information

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish: LC50 > 6,810 mg/l, *Leuciscus idus* (DIN 38412 Part 15)

Aquatic invertebrates: LC50 (48 h) > 10,000 mg/l, *Daphnia magna* Literature data.

Aquatic plants: EC10 (8 d) > 10,000 mg/l, *Scenedesmus quadricauda* Literature data.

Microorganisms/Effect on activated sludge: EC10 (16 h) > 10,000 mg/l, *Pseudomonas putida* Literature data.

Persistence and degradability

Elimination information: 96 % DOC reduction (16 d) Biodegradable.

Bioaccumulation potential

Bioaccumulation potential: Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Additional information

Other ecotoxicological advice:

The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.



13. DISPOSAL CONSIDERATIONS

Test for use in agriculture.

Contaminated packaging: Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. TRANSPORT INFORMATION

Land transport

ADR Not classified as a dangerous good under transport regulations

RID Not classified as a dangerous good under transport regulations

Inland waterway transport

ADNR Not classified as a dangerous good under transport regulations

Sea transport

IMDG Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO Not classified as a dangerous good under transport regulations

15. REGULATORY INFORMATION

Regulations of the European union (Labelling) / National legislation/Regulations

The product does not require a hazard warning label in accordance with EC Directives.

CONTACT:

Bluebasic srl

www.bluebasic.it

NOTE

THE DATA CONTAINED IN THIS SAFETY DATA SHEET ARE BASED ON OUR CURRENT KNOWLEDGE AND EXPERIENCE AND DESCRIBE THE PRODUCT ONLY WITH REGARD TO SAFETY REQUIREMENTS. THE DATA DO NOT DESCRIBE THE PRODUCT'S PROPERTIES (PRODUCT SPECIFICATION). NEITHER SHOULD ANY AGREED PROPERTY NOR THE SUITABILITY OF THE PRODUCT FOR ANY SPECIFIC PURPOSE BE DEDUCED FROM THE DATA CONTAINED IN THE SAFETY DATA SHEET. IT IS THE RESPONSIBILITY OF THE RECIPIENT OF THE PRODUCT TO ENSURE ANY PROPRIETARY RIGHTS AND EXISTING LAWS AND LEGISLATION ARE OBSERVED.