

Safety Data Sheet

AdBlue®



1. IDENTIFICATION

Product Identifier

Product Name AdBlue® Aqueous Urea Solution
Synonyms AUS 32, DEF (diesel exhaust fluid)
Other Means of Identification Not available

Recommended Use & Restrictions of Use Urea & water additive to be used for injection into diesel SCR exhaust systems.
Use as directed by engine manufacturer.

Supplier's Details

Company Go Blue
Address Unit 1 / 1 McDowell St., Welshpool WA 6106
Telephone 1300 325 675
Email office@goblue.com.au
Website www.goblue.com.au

Emergency Telephone Number

Association Poison Information Centre
Telephone Number 13 11 26

2. HAZARDS IDENTIFICATION

Classification of the Substance/Mixture

Poisons Schedule Classification Not Applicable

Label Elements

GHS Label Elements Not Applicable
Hazard Statement/s Not Applicable

Precautionary Statements - Prevention
Not Applicable

Precautionary Statements - Response
Not Applicable

Precautionary Statements - Storage
Not Applicable

Precautionary Statements - Disposal
Not Applicable

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances Mixture of demineralised water & urea.

Mixtures

CAS No.	% (weight)	Name
7732-18-5	67.5% +/- 0.7%	Demineralized water
57-13-6	32.5% +/- 0.7%	Urea

4. FIRST AID MEASURES

General Information Not expected to be a health hazard when used under normal conditions

Eye Contact

- Flush eye with copious quantities of water.
- If persistent irritation occurs, obtain medical attention.

Skin Contact

- Remove contaminated clothing.
- Flush exposed area with water and follow by washing with soap if available.

Inhalation

- No treatment necessary under normal conditions of use.
- If symptoms persist, obtain medical advice.

Ingestion

- No treatment necessary unless large quantities are swallowed.
- If symptoms persist, obtain medical advice.

Indication of immediate medical attention/special treatment needed

- Treat symptomatically

5. FIRE FIGHTING MEASURES

Extinguishing Media No restriction on the type of extinguisher that may be used.

Special hazards arising from the chemical

- When heated, releases ammonia.
- When heated to decomposition, releases toxic fumes of nitrogen oxides, ammonia, cyanuric acid.

Advice for Fire Fighters

Fire Fighting

- Clear fire area of non-emergency personal.
- Alert fire brigade: define location, nature of hazard.
- Wear personal safety equipment: breathing apparatus, gloves.
- Use fire fighting procedures suitable for the surrounding environment.

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6. ACCIDENTAL RELEASES MEASURES

Personal precautions, protective equipment and emergency procedures

See 8. Exposure Controls/Personal Protection

Environmental precautions

See 12. Ecological information

Methods & materials for containment & cleaning up

Containment

- Use appropriate containment to avoid environmental contamination.
- Use absorbent material such as sand, earth, vermiculite.

Major spill

- Alert fire brigade: define location, nature of hazard.

Clean up

- Use absorbent material such as sand, earth, vermiculite.

7. HANDLING & STORAGE

Precautions for safe handling

- Use in well ventilated area.
- Properly dispose of contaminated rags or cleaning materials.
- Use personal safety equipment, including safety footwear when drums are being handled.
- Store away from incompatible materials.

Conditions for safe storage, including any incompatibilities

Suitable containers

- Stainless steel.
- Polyethylene (PE)
- Polypropylene (PP)

Incompatible storage

- Avoid..
- storage/mixing with oxidizing agents.
 - Carbon steels, zinc coated carbon steels, mild iron.
 - Non-ferrous metals & alloys: copper, copper alloys, zinc, lead.
 - Solders containing lead, silver zinc, copper.
 - Aluminium, aluminium alloys.
 - Magnesium, magnesium alloys.
 - Plastics or metals coated with nickel.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

The following materials had no OEL's,

- AdBlue, DEF, AUS 32.

Ingredient Data

See separate SDS for UREA

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION *(continued)*

Exposure Controls

- remove a hazard or place a barrier between the worker & the hazard. The basic types of engineering controls are,
- process controls: change the way a job activity or process is done to reduce the risk.
- enclosure and/or isolation of emission source: keep a selected hazard physically away from the worker and ventilation that appropriately removes or adds air to the work environment.

Appropriate engineering controls

Personal protection



Eye and face protection

- Safety glasses with side shield
- Full face safety visor

Skin protection

See Hands/feet protection below

Hands/feet protection

- Protective gloves e.g. PVC safety gloves
- Safety footwear or safety gum boots e.g. rubber boots

Body protection

Overalls
PVC apron

Other protection

-

Thermal protection

-

9. PHYSICAL and CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Clear colourless slightly alkaline liquid with odour of ammonia. Mixes with water.		
Physical State	liquid	Relative density (water = 1)	1.094
Odour	Slight ammonia	Partition Coefficient	Not Available
Odour threshold	Not Available	Auto ignition temp.	Not Available
pH	9.5	Decomposition temp.	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point & boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available

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9. PHYSICAL and CHEMICAL PROPERTIES (continued)

Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit	Not Available	Surface Tension	Not Available
Lower Explosive Limit	Not Available	Volatile Component (% vol)	Not Available
Vapour Pressure (kPa)	Not Available	Gas Group	Not Available
Solubility in Water	Miscible	pH as a Solution (1%)	Not Available
Vapour Density (Air = 1)	Not Available	VOC (g/L)	Not Available

10. STABILITY AND REACTIVITY

Reactivity	See 7. Handling and Storage
Chemical stability	<ul style="list-style-type: none"> • Product is considered stable. • Hazardous polymerization will not occur.
Possibility of hazardous reactions	See 7. Handling and Storage
Conditions to avoid	See 7. Handling and Storage
Incompatible materials	See 7. Handling and Storage
Hazardous decomposition materials	See 7. Handling and Storage

11. TOXICOLOGICAL INFORMATION

Information of toxicological effects

Inhalation	There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.
Ingestion	Urea may cause irritation to the digestive tract, nausea, vomiting, diarrhea, salt depletion, headache, confusion.
Skin contact	The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
Eye contact	The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
Chronic	Substance accumulation in the human body may occur and may cause some concern following repeated or long-term occupational exposure.

**AdBlue®
Aqueous Urea Solution**

TOXICITY
Not Available

IRRITATION
Not Available

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12. ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration (1hr)	Species	Value
Urea	LC50	96	Fish	5 mg/L ⁴
Urea	EC50	48	Crustacea	3910 mg/L ⁴
Urea	EC50	96	Algae or other aquatic plants	42184.758 mg/L ³
Urea	BCF	24	Algae or other aquatic plants	0.05 mg/L ⁴
Urea	EC50	384	Crustacea	894.861 mg/L ³
Urea	NOEC	168	Fish	200 mg/L ²

² Europe ECHA Registered Substances – Ecotoxicological Information – Aquatic Toxicity. ³ EPIWIN Suite V3.12 – Aquatic Toxicity Data (estimated). ⁴ US EPA, Ecotox database – Aquatic Toxicity Data

Persistence and degradability

Ingredient	Persistence: water/soil	Persistence: air
Urea	LOW	LOW

Bioaccumulative potential and Mobility in soil

Ingredient	Bioaccumulation	Mobility in Soil
Urea	LOW (BCF = 10)	LOW (KOC = 4.191)

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Legislation addressing waste disposal requirement may differ by country, state or territory. Each user must refer to laws operating in their area.

This product may be recycled if unused, or if it has not be contaminated so as the make it unsuitable for its intended use.

- Do not allow wash water from cleaning or process equipment to enter storm-water drains.
- It may be necessary to collect all wash water for treatment before disposal.
- Disposal to sewer may be subject to local laws & regulations and these should be considered first.
- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a specifically licensed landfill (chemical and/or pharmaceutical waste), or incineration in licensed apparatus (after admixture with suitable combustible material).
- decontaminate empty containers.

Product & packaging disposal

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14. TRANSPORT INFORMATION

Labels Required

Marine pollutant	No
HAZCHEM	Not Applicable
Land transport (ADG)	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
Air transport (ICAO-IATA/DGR)	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
Sea transport (IMDG-Code/GGVSee)	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
Transport in bulk according to Annex II of MARPOL and the IBC code	Not Applicable

15. REGULATORY INFORMATION

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

Urea (57-13-6) is found on the following regulatory lists

Australian Inventory of Chemical Substances (AICS)

National Inventory	Status
Australia – AICS	Y
Canada – DSL	Y
Canada – NDSL	N (urea)
China – IECSC	Y
Europe – EINEC/ELINC/NLP	Y
Japan – ENCS	Y
Korea – KECI	Y
New Zealand – NZIoC	Y
Philippines – PICCS	Y
USA - TSCA	Y

Y = all ingredients are on the inventory.

Legend: *N = not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)*

16. OTHER INFORMATION