SAFETY DATA SHEET

SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Identifier

PRODUCT NAME	:	**AdBlue®**
TRADE NAME	:	AdBlue/ DEF/ ARLA32/ AUS32
CHEMICAL NAME	:	Urea Solution 32.5%
PRODUCT CODE	:	AdBlue
EC NUMBER	:	200-315-5

1.2 Relevant identified use of substance or mixture and uses advised against

Industrial use - NOx and Sox reduction.
NOx Abatement reagent used in SCR systems for diesel engines

1.3 Emergency telephone number

National Chemical Emergency Centre

+44 (0) 333 3339961 – 24h service

SAFETY DATA SHEET

SECTION 2- HAZARDS IDENTIFICATION SUMMARY

2.1 Classification of the substance or mixture - Classification According to Regulation (EC) No. 1272/2008 [CLP/GHS]

Product Definition: Mixture

HEALTH HAZARDS: Not Classified

PHYSICAL HAZARDS: Not Classified

ENVIRONMENTAL HAZARDS: Not Classified

2.2 Label elements

Signal word:	None
Hazard statements:	Not applicable

Precautionary statements

General:	Not applicable
EU Regulation (EC) No. 1907/2006 (REACH) Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Not applicable

Special packaging requirements

Containers to be fitted with child-resistant fastenings	Not Applicable
Tactile warning of danger:	Not Applicable

2.3 Other hazards

Other Hazards that do not result in classification:	Not Applicable

SECTION 3- COMPOSITION, INFORMATION OF INGREDIENTS

3.2 Mixtures

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4- FIRST AID MEASURES

4.1 Description of First Aid measures

Inhalation: Remove affected person from source of contamination. Get medical attention if any discomfort continues.

Ingestion: Do not induce vomiting. Get medical attention if any discomfort continues. Skin contact Wash skin thoroughly with soap and water. Remove contaminated clothing. Get medical attention if irritation persists after washing.

Eye contact: Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

4.2 Most important symptoms and effects, both acute and delayed

General Information: No additional symptoms or effects are anticipated

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically

SECTION 5- FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media Use foam, carbon dioxide, dry powder or water fog to extinguish.

5.2. Special hazards arising from the substance or mixture

Specific hazards: In case of fire, toxic gases may be formed. Hazardous combustion products Does not decompose when used and stored as recommended.

5.3. Advice for firefighters

Protective actions during Firefighting: Use water spray to reduce vapours.

Special protective equipment: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6- ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel :	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders :	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections:

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7- HANDLING AND STORAGE

7.1. Precautions for safe handling

Usage precautions: Avoid contact with skin and eyes. Provide adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Recommendations: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Bund storage facilities to prevent soil and water pollution in the event of spillage.

7.3 Specific end use(s)

Recommendations: Not Available

SECTION 8- EXPOSURE CONTROLS, PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits

Urea

Long-term exposure limit (8-hour TWA): WEL No std.
Short-term exposure limit (15-minute): WEL No std.
WEL = Workplace Exposure Limit

Ingredient comments No exposure limits known for ingredient(s).

DNEL No DNEL information available.

PNEC No PNEC information available

8.2 Exposure controls

Appropriate engineering controls:	Provide adequate ventilation.
Eye/face protection:	Wear tight-fitting, chemical splash goggles or face shield. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection:	Wear protective gloves. Wear protective gloves made of the following material: Polyvinyl chloride (PVC). To protect hands from chemicals, gloves should comply with European Standard EN374. Other skin and body protection Wear suitable protective clothing as protection against splashing or contamination.
Hygiene measures:	Provide eyewash station. Wash hands at the end of each work shift and before eating, smoking and using the toilet.
Respiratory protection:	If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colourless.
Odour	Slight.
pH	pH (concentrated solution): 10
Initial boiling point and range	100°C
Relative density	1.088 g/cm3 @ 20°C
Solubility(ies)	Miscible with water.
Viscosity	1.4 mPa s @ 25°C

9.2. Other information

Refractive index	1.3814 - 1.3843
Water solubility	>100g/l

SAFETY DATA SHEET

SECTION 10- STABILITY AND REACTIVITY

10.1 Reactivity	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	Stable at normal ambient temperatures and when used as recommended. Product freezes at - 11°C. Product starts to hydrolyse at 30°C
10.3. Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	Avoid contamination by any source including metals, dust and organic materials.
10.5 Incompatible materials	Urea reacts with calcium hypochlorite or sodium hypochlorite to form the explosive nitrogen trichloride.
Remark	acids, alkalis, Nitrites and nitrates
10.6 Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11- TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Conclusion/Summary:	No known significant effects or critical hazards.

Irritation/Corrosion

Conclusion/Summary:

Skin	No known significant effects or critical hazards.
Eyes	No known significant effects or critical hazards.
Respiratory	No known significant effects or critical hazards.

SECTION 12- ECOLOGICAL INFORMATION

12.1. Toxicity

Acute toxicity - fish	LC_{50}, 96 hours: >6810 mg/l, Fish

12.2. Persistence and degradability

Persistence and degradability	The product is biodegradable.

12.3. Bio accumulative potential

Bio accumulative potential	No data available on bioaccumulation.

12.4. Mobility in soil

Mobility	This product may move with surface or groundwater flows because its water solubility is: high

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	No information available

12.6. Other adverse effects

Other adverse effects	None known.

SECTION 13- DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

General information	Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Disposal methods	The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

SECTION 14- TRANSPORT INFORMATION

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number Not applicable.

14.2. UN proper shipping name Not applicable.

14.3. Transport hazard class(es) No transport warning sign required.

14.4. Packing group Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant – no

14.6. Special precautions for user Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Proper shipping name	Urea solution
Ship type	3
Pollution category	Z

SECTION 15- REGULATORY INFORMATION

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

National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
EU legislation	Regulation (EC) No 1272/2008 CLP. Regulation (EC) No 1907/2006 REACH.
Guidance	Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16- OTHER INFORMATION

Abbreviations and acronyms	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level DMEL = Derived Minimal Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number PBT = Persistent, Bio accumulative and Toxic vPvB = Very Persistent and Very Bio accumulative bw = Body weight
Key data sources	EU REACH IUCLID5 CSR. National Institute for Occupational Safety and Health, U.S. Dept. of Health, Education, and Welfare, Reports and Memoranda Registry of Toxic Effects of Chemical Substances. Sphera Solutions Inc., 4777 Levy Street, St Laurent, Quebec HAR 2P9, Canada. Regulation (EC) No 1272/2008 Annex VI.

SAFETY DATA SHEET

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Not Classified Calculation
Justification	method
Revision comments	Second issue
Issued by	Project-A International Ltd
Revision date	1/6/2026
Revision no.	2

Notice to reader
To the best of our knowledge, the information provided in this Safety Data Sheet is accurate as at the date of its issue. The information it contains is being given for safety guidance purposes and relates only to the specific material and uses described in it. This information does not necessarily apply to that material when combined with other material(s) or when used otherwise than as described herein, since all materials may represent unknown hazards and should be used with caution. Final determination of the suitability of any material is the sole responsibility of the user.

AdBlue® is a registered trademark of the Verband der Automobilindustrie e.V. (VDA)



Manufactured by Yara, leading global AdBlue® producer, according to ISO 22241. AdBlue® is a registered trademark of the Verband der Automobilindustrie e.V. (VDA).