



# **SAFETY DATA SHEET**

# **SECTION 1. PRODUCT IDENTIFICATION AND SUPPLY COMPANY DETAILS**

**Product name:** AdBlue®

Synonyms: AUS 32 (Aqueous urea solution); DEF (Diesel exhaust fluid); urea

solution 32.5%

**Recommended use:** Additive for injection into diesel SCR exhaust systems (NO reduction

in exhaust gases).

**Supplier:** EcoBlue International Pty Ltd

**ABN:** 71 644 895 830

Street Address: 15 Ernest Clark Road, Canning Vale, WA 6155

Website: <a href="https://www.ecoblue.com">www.ecoblue.com</a>

Email: customerservice@ecoblue.com

**Telephone:** 1300 310 340

Emergency Telephone: Australia - Poisons Information Centre 13 11 26

# **SECTION 2. HAZARD IDENTIFICATION**

Classification of	Non-Dangerous goods according to NOHSC criteria and Australian		
mixture	Dangerous Goods (ADG) Code.		
Poisons Schedule	Not Applicable		
	Serious Eye Damage/Eye Irritation Category 2A, Specific Target Organ		
Classification <sup>[1]</sup>	Toxicity - Single Exposure (Respiratory Tract Irritation)		
	Category 3, Skin Corrosion/Irritation Category 2		
Legend	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 -Annex VI		

#### **Label Elements**

**Hazard statement(s)** 

Hazard pictogram	<	1
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# Signal word Warning

H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

H315 Causes skin irritation.

# Precautionary Statement(s) - Prevention

P271	Use only outdoors or in a well-ventilated area.
P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P264	Wash all exposed external body areas thoroughly after handling.

# Precautionary Statement(s) - Response

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.



P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.	
P337+P313	If eye irritation persists: Get medical advice/attention.	
P302+P352	IF ON SKIN: Wash with plenty of water.	
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	
P332+P313	If skin irritation occurs: Get medical advice/attention.	
P362+P364	Take off contaminated clothing and wash it before reuse.	
Precautionary Statement(s) – Storage		
P405	Store locked up.	
P403+P233	Store in a well-ventilated place. Keep container tightly closed.	
Precautionary Statement(s) – Disposal		
P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.	

# **SECTION 3. COMPOSITION INFORMATION**

CHEMICAL ENTITY	CAS NO.	%[WEIGHT]
Water	7732-18-5	67.5%
Urea	57-13-6	32.5%

# **SECTION 4. FIRST AID MEASURES**

Australia Poisons Information Centre 13 11 26 I Australia Emergency Services: 000

# Description of first aid measures

Description of first aid	measures
Eye contact	<ul> <li>If this product comes into contact with eyes:</li> <li>Wash out immediately with fresh running water.</li> <li>Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
Skin contact	<ul> <li>If skin contact occurs:</li> <li>Immediately remove all contaminated clothing, including footwear.</li> <li>Flush skin and hair with running water (and soap if available).</li> <li>Seek medical attention in event of irritation.</li> </ul>
Inhalation	<ul> <li>If fumes or combustion products are inhaled remove from contaminated area.</li> <li>Lay patient down. Keep warm and rested.</li> <li>Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid</li> <li>procedures.</li> <li>Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket</li> <li>mask as trained. Perform CPR if necessary.</li> <li>Transport to hospital, or doctor</li> </ul>
Ingestion	<ul> <li>If swallowed do NOT induce vomiting.</li> <li>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and</li> <li>prevent aspiration.</li> <li>Observe the patient carefully.</li> <li>Never give liquid to a person showing signs of being sleepy or with reduced awareness, i.e. becoming unconscious.</li> </ul>



- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice

#### **SECTION 5. FIRE FIGHTING MEASURES**

#### Suitable Extinguishing media:

There is no restriction on the type of extinguisher which may be used.

Choice of extinguishing media should take into account surrounding areas.

# Specific hazards arising from the substance or mixture

Fire incompatibility	<ul> <li>Avoid contamination with strong oxidising agents as ignition may result.</li> </ul>			
The meompatibility	<ul> <li>Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.</li> </ul>			

# Advice for firefighters

Fire Fighting	<ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves in the event of a fire.</li> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use firefighting procedures suitable for surrounding area.</li> <li>DO NOT approach containers suspected to be hot.</li> <li>Cool fire exposed containers with water spray from a protected location.</li> <li>If safe to do so, remove containers from path of fire.</li> <li>Equipment should be thoroughly decontaminated after use.</li> </ul>
Fire/Explosion	<ul> <li>Noncombustible.</li> <li>Not considered to be a significant fire risk.</li> <li>Expansion or decomposition on heating may lead to violent rupture of containers.</li> <li>Decomposes on heating and may produce toxic fumes of carbon monoxide (CO).</li> <li>May emit acrid smoke.</li> <li>Decomposition may produce toxic fumes of: carbon dioxide (CO2) nitrogen oxides (NOx) other pyrolysis products typical of burning organic material.</li> <li>May emit corrosive fumes.</li> </ul>
HAZCHEM	Not Applicable

# **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

# Personal precautions, protective equipment and emergency procedures

See section 8.

#### **Environmental precautions**

See section 12

# Methods and material for containment and cleaning up

# Slippery when spilt. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite.



	<ul><li>Wipe up.</li><li>Place in a suitable, labelled container for waste disposal.</li></ul>
Major Spills	<ul> <li>Slippery when spilt.</li> <li>Minor hazard.</li> <li>Clear area of personnel.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Control personal contact with the substance, by using protective equipment as required.</li> <li>Prevent spillage from entering drains or water ways.</li> <li>Contain spill with sand, earth or vermiculite.</li> <li>Collect recoverable product into labelled containers for recycling.</li> <li>Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal.</li> <li>Wash area and prevent runoff into drains or waterways.</li> <li>If contamination of drains or waterways occurs, advise emergency services.</li> </ul>

# **SECTION 7. HANDLING AND STORAGE**

Precau	ıtions	for	safe	han	dlina
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	<ul> <li>Limit all unnecessary personal contact.</li> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Use in a well-ventilated area.</li> <li>When handling DO NOT eat, drink or smoke.</li> </ul>		
Cafa bandling	<ul> <li>Milen handling DO NOT eat, drink of smoke.</li> <li>Always wash hands with soap and water after handling.</li> </ul>		
Safe handling	Keep containers securely sealed when not in use		
	<ul> <li>Avoid physical damage to containers.</li> </ul>		
	Use good occupational work practice.		
	<ul> <li>Observe manufacturer's storage and handling recommendations</li> </ul>		
	contained within this SDS.		
	Store between 10 and 30°C		
	Store in original containers.		
Chavana	Keep containers securely sealed.		
Storage	Store in a cool, dry, well-ventilated area.		
requirements	<ul> <li>Store away from incompatible materials and foodstuff containers.</li> </ul>		
	<ul> <li>Protect containers against physical damage and check regularly for leaks.</li> </ul>		
	<ul> <li>Observe manufacturer's storage and handling recommendations contained within this SDS</li> </ul>		

# Conditions for safe storage, including any incompatibilities

	<ul> <li>Polyethylene or polypropylene container.</li> </ul>
Suitable container	<ul> <li>Packing as recommended by manufacturer.</li> </ul>
	Check all containers are clearly labelled and free from leaks.
Storage	Avoid reaction with oxidising agents
incompatibility	<ul> <li>Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.</li> </ul>

# **SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

# **Control parameters**

**Emergency Limits** 

Ingredient	TEEL - 1	TEEL – 2	TEEL-3
urea	30mg/m3	280 mg/m3	1,700 mg/m3

# **Occupation Exposure Banding**

Ingredient Occupational Exposure Band Rating Occupational Exposure Band Limit



urea	Е	≤ 0.01 mg/m3
		5.

# **Material Data**

Appropriate engineering controls	Provide adequate ventilation in warehouse or closed storage areas.  Ventilation can remove or dilute an air contaminant and general exhaust is adequate under normal operating conditions.  If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection.
Personal protection	
Eye and face protection	<ul> <li>Safety glasses with side shields; or as required.</li> <li>Chemical goggles.</li> <li>Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</li> </ul>
Skin protection	See hand protection below
Hands/feet protection	Wear protective gloves, e.g. Neoprene, Butyl or Viton
Body protection	See Other protection below
Other protection	<ul><li>Overalls</li><li>Eyewash unit</li></ul>

# Recommended material(s)

# **Respiratory protection**

Type -P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	Colourless clear liquid when free from crystals							
Physical s	Physical state Liquid Relative density (water = 1) 1.09@20							
Odour		Odourless	Partition coefficient n-octanol / water	Not available				
Odour thres	hold	Not Available	Auto-ignition temperature (°C)	Not available				
	рН	Not Available	Decomposition temperature (°C)	100				
Melting point / freezing point (°C)		-11.5	Viscosity (cSt)	Not available				
Boiling Point	t (°C)	100	Molecular weight (g/mol)	Not available				
Flash P	Point	Not available	Taste	Not available				
Evaporation rate		Not available	Explosive properties	Not available				
Flammability		Not Available	Oxidising properties	Not available				
Upper Explosive Limit (%)		Not Available	Surface Tension (dyn/cm	Not available				



		or mN/m)	
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not available
Vapour pressure (kPa)	6.4 @ 40 °C	Gas group	Not available
Solubility in water (g/L)	Miscible	pH as a solution (1%)	9.8 – 10.0 (10%)
Vapour density (Air = 1)	Not Available	VOC (g/L)	Not available

# **SECTION 10. STABILITY AND REACTIVITY**

Reactivity	See section 7
Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

# **SECTION 11. TOXICOLOGICAL INFORMATION**

# Information on toxicological effects

Inhaled	Not normally a hazard due to non-volatile nature of product Inhalation of vapours or mists may cause respiratory irritation.
Ingestion	Ingestion may result in nausea, abdominal irritation, pain and diarrhoea
Skin contact	Irritation and skin reactions are possible with sensitive skin The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis.
Eye	The liquid may produce eye discomfort causing transient smarting, blinking
Chronic	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models).  Principal routes of exposure are by accidental skin, eye contact and inhalation of vapours.  As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in workplace atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

AdBlue®	Toxicity	Irritation		
Aublue	Not Available	Not Available		
	Toxicity	Irritation		
urea	Dermal (rat) LD50: 8200 mg/kg <sup>[2]</sup>	Eye: no adverse effect observed (not irritating)[1]		
uica	Oral (rat) LD50: 8471 mg/kg <sup>[2]</sup>	Skin (human): 22 mg/3 d (l) – mild)		
		Skin: no adverse effect observed (not irritating)[1]		
water	Toxicity	Irritation		
water	Oral (Rat) LD50; >90000 mg/kg <sup>[2]</sup>	Not Available		
Legend	Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS.     Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances			

Acute toxicity	×	Carcinogenicity	×
Skin irritation/Corrosion	<b>~</b>	Reproductivity	×
Serious Eye Damage/Irritation	<b>~</b>	STOT – Single Exposure	~



Respiratory or Skin sensitization	×	STOT – Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×
Legend: V - Data either not available or does not fill the criteria for classification			

Legen

Data either not available or does not
 Data available to make classification

# **SECTION 12. ECOLOGICAL INFORMATION**

**DO NOT** discharge into sewer or waterways.

# **Toxicity**

AdBlue	<b>End Point</b>	Test Duration (hr)	Species	Value	Source
Aublue	Not Available	Not Available	Not Available	Not Available	Not Available

	End Point	Test Duration (hr)	Species	Value	Source
Urea	NOEC (ECx)	48h	Algae or other aquatic plants	7 mg/L	4
	LC50	96h	Fish	4.65 – 8.48 mg/l	4
	EC50	48h	Crustacea	6119 – 7061 mg/l	4

Water	End Point	Test Duration (hr)	Species	Value	Source
water	Not Available	Not Available	Not Available	Not Available	Not Available
Legend:	4. US EPA, Ecotox da	LID Toxicity Data 2. Europe EC tabase - Aquatic Toxicity Data ta 7. METI (Japan) - Bioconcer	5. ECETOC Aquatic Haza	rd Assessment Data 6. NITE	

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Urea	Low	Low
Water	Low	Low

Bio accumulative potential

Bio accamalative potential			
Ingredient	Bioaccumulation		
Urea	Low (BCF = 10)		
Mobility in soil			
Ingredient	Mobility		

Low (KOC = 4.191)

# **SECTION 13. DISPOSAL CONSIDERATIONS**

# Waste treatment methods

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible or dispose of in an authorised landfill.

# **SECTION 14. TRANSPORT INFORMATION**

#### **Labels Required**

Urea

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 Transport in bulk in accordance with MARPOL Annex V, IMSBC Code and the ICG Code

Product name	Group



urea	Not Available
water	Not Available

#### **SECTION 15. REGULATORY INFORMATION**

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

All ingredients are found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

#### **National Inventory Status**

National Inventory	Status	National Inventory	Status
Australia – AIICS / Australia Non- Industrial Use	Yes	New Zealand - NZIoC	Yes
Canada - DSL	Yes	Philippines - PICCS	Yes
Canada - NDSL	No (urea; water)	USA - TSCA	Yes
China - IECSC	Yes	Taiwan – TSCA	Yes
Europe – EINEC/ELINC/NLP	Yes	Mexico -INSQ	Yes
Japan - ENCS	Yes	Vietnam – NCI	Yes
Korea - KECI	Yes	Russia – FBEPH	Yes

Legend

Yes = All CAS declared ingredients are on the inventory

No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

# **SECTION 16. OTHER INFORMATION**

Revision Date	11/04/2023
Initial Date	30/04/2019

#### **SDS Version Summary**

Version	Date of Update	Sections Updated
3.1	11/04/2023	All Sections

#### Reason(s) for Issue:

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since EcoBlue International Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their EcoBlue representative or EcoBlue International Pty Ltd at the contact details on page 1.

EcoBlue International Pty Ltd 's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

Please read all labels carefully before using product.

This SDS is prepared in accordance with the Safe Work Australia Code of Practice *Preparation of safety data sheets for hazardous chemicals. Code of Practice.* July 2020. <a href="https://www.swa.gov.au">www.swa.gov.au</a>.

#### **Acronyms**

TEEL	Temporary Emergency Exposure Limit	NLP:	No-Longer Polymers
NOAE:	No Observed Adverse Effect Level	ENCS:	Existing and New Chemical Substances Inventory
BCF:	Bio Concentration Factors	KECI	Korea Existing Chemicals Inventory
AIIC:	Australian Inventory of Industrial Chemicals	NZIoC:	New Zealand Inventory of Chemicals
NOHSC:	National Occupational Health and Safety	PICCS:	Philippine Inventory of Chemicals and Chemical
NOHSC.	Commission	PICCS.	Substances
STOT:	Specific Target Organ Toxicity	TSCA:	Toxic Substances Control Act
DSL:	Domestic Substances List	TCSI:	Taiwan Chemical Substance Inventory
NDSL:	Non-Domestic Substances List	INSQ:	Inventario Nacional de Sustancias Químicas
IECSC:	Inventory of Existing Chemical Substance in China	NCI:	National Chemical Inventory
FINECC:	European Inventory of Existing Commercial	EDEDI.	Russian Register of Potentially Hazardous
EINECS:	chemical Substances	FBEPH:	Chemical and Biological Substances
ELINCS:	European List of Notified Chemical Substances		