

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	103°C
Relative density	1.09 @ 20°C
Solubility(ies)	Miscible with water.
Viscosity	1.4 mPa s @ 25°C

9.2. Other information

Refractive index	1.3814 - 1.3843
------------------	-----------------

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
------------	---

10.2. Chemical stability

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

Possibility of hazardous reactions	None under normal processing.
------------------------------------	-------------------------------

10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition.
---------------------	---

10.5. Incompatible materials

Materials to avoid	Strong oxidising agents. Nitrites Acids. Alkalis. Calcium hypochlorite. Sodium hypochlorite. Urea reacts with calcium hypochlorite or sodium hypochlorite to form the explosive nitrogen trichloride.
--------------------	---

10.6. Hazardous decomposition products

Hazardous decomposition products	Ammonia
----------------------------------	---------

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation	Remove from contaminated area. Lay patient down. Keep warm and rested.
Ingestion	Although ingestion is not thought to be harmful, the material may lead to discomforting effects by inducing gastrointestinal tract pain leading to nausea and vomiting. In an occupational setting, ingestion of insignificant quantities should not be a cause for concern.

Environmental precautions Contain spillage with sand, earth or other suitable non-combustible material. Avoid discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see section 13.

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

Storage precautions Store at moderate temperatures in dry, well ventilated area. Store in closed original container at temperatures between 0°C and 30°C. Do not use containers made of the following materials: Copper and its alloys. Galvanised containers.

7.3. Specific end use(s)

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

Protective equipment



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 at the end of each work shift and before eating, smoking and using the toilet.

Skin contact	Product can produce inflammation of the skin following prolonged contact or immersion. Skin contact is not thought to have harmful health effects, the material may still produce adverse effects following entry through wounds, lesions or abrasions, where a stinging sensation will be felt.
Eye contact	Although the material is not classed as an irritant, direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness.

Toxicological information on ingredients.

DEMIN WATER

General information	No specific health hazards known.
Skin contact	Skin irritation should not occur when used as recommended.
Eye contact	No specific health hazards known.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >6810 mg/l, Fish

Ecological information on ingredients.

DEMIN WATER

Toxicity	Not considered toxic to fish.
-----------------	-------------------------------

12.2. Persistence and degradability

Persistence and degradability The product is biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

12.4. Mobility in soil

Mobility No information available.

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	Recycle containers wherever possible. This product is not classified as hazardous waste.

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

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

General information	Only trained personnel should use this material. Since empty containers retain product residue, follow label warnings, even after container is emptied. For further Health and Safety information contact: Health and Safety Officer. Labels should not be removed from containers until they have been cleaned and no product remains within.
Revision comments	Updated company address.
Issued by	Compliance Department
Revision date	20/08/2021
Revision	11
Supersedes date	16/10/2018
SDS status	Approved.

3.2. Mixtures

urea		30-60%
CAS number: 57-13-6	EC number: 200-315-5	REACH registration number: 01-2119463277-33-XXXX
Classification Not Classified		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments Contains water and preservative

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 for the doctor Treat symptomatically.

SECTION 5: Firefighting 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 for firefighters	Use air-supplied respirator, gloves and protective goggles.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions Provide adequate ventilation.

6.2. Environmental precautions

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product name	CleanAirBlue® AdBlue®
Product number	4303
Synonyms; trade names	AdBlue®/ Urea Solution/DEF/ARLA 32
CAS number	57-13-6
EC number	200-315-5

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

Identified uses	Fuel additive.
-----------------	----------------

1.3. Details of the supplier of the safety data sheet

Supplier	Samuel Banner & Co Ltd 2M House Sutton Quays Business Park Clifton Road Sutton Weaver RUNCORN WA7 3EH, UK +44 (0)1928 597 000 (General Enquiries) +44 (0)1928 240 801 (Fax)
Contact person	sdsadmin@bannerchemicals.com

1.4. Emergency telephone number

Emergency telephone	0870 190 6777 (National Chemical Emergency Centre) +44 (0)1270 502891
---------------------	---

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification (EC 1272/2008)**

Physical hazards	Not Classified
Health hazards	Not Classified
Environmental hazards	Not Classified

2.2. Label elements

EC number	200-315-5
Hazard statements	NC Not Classified
Precautionary statements	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards**SECTION 3: Composition/information on ingredients**