



LANDOWNER BLUE ADBLUE®

SAFETY DATA SHEET

Revised: 01/12/2021

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : Landowner Blue AdBlue®
CAS number: 57-13-6
EC number: 200-315-3
Reach number: 01-2119463277-33-xxxx
Composition: Mixture of Urea and Water

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

Identified uses Industrial distribution; Industrial Use for flue gas NOx and SOx reduction; Industrial USE as a laboratory/research chemical; Professional USE as reactive agent/processing aid and for general chemical applications; Consumer USE as a specialist product.

Uses advised against: None identified.

1.3 Details of the supplier of the safety data sheet

Landowner Products Ltd
Farley
Much Wenlock
Shropshire
Tf13 6NX

Tel: 01952 727754
e-mail: sales@landowner.co.uk

Emergency Telephone Number: 01952 727754

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture.

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification : Not classified. The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended. See Section 11 for more detailed information on health effects and symptoms.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC:



Classification : Not classified.

2.2 Label elements

Label according to Regulation (EC) 1272/2008: None

Signal word : No signal word.

Hazard statements : Not applicable.

Precautionary statements : Not applicable.

Hazard Pictograms: None

Special packaging requirements

Containers to be fitted with child-resistant fastenings: Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII This mixture does not contain any substances that are assessed to be a PBT or a vPvB

Other hazards which do not result in classification: None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

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.

SECTION 4: First aid measures

4.1 Description of first aid measures

General: No special measures required

Eye contact : Rinse with plenty of running water. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Avoid inhalation of vapor, spray or mist. If inhaled, remove to fresh air. Get medical attention if you feel unwell.

Skin contact : Wash with soap and water. Get medical attention if irritation develops.

Ingestion : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Get medical attention if adverse health effects persist or are severe.



Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media: None identified.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products: Decomposition products may include the following materials: nitrogen oxides, ammonia, Avoid breathing dusts, vapours or fumes from burning materials. In case of inhalation of decomposition products in a fire, symptoms may be delayed.

5.3 Advice for firefighters

Special actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: 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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

For emergency responders : If specialized 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 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. Alternatively, 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 disposal information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).



7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

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, upright 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)

Store out of direct sunlight and below 30°C. Product must not be stored in direct contact with mild steel, aluminium, brass or copper.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits: The product does not contain any relevant quantities of materials with values that are critical to be monitored in the workplace.

DNELs/DMELs: No DNELs/DMELs available.

PNECs: No PNECs available.

8.2 Exposure controls

Individual protection measures

Hygiene measures : A washing facility or water for eye and skin cleaning purposes should be present. Wash hands, forearms and face thoroughly after handling, before eating, smoking and using the lavatory and at the end of the working period. Wash contaminated clothing before reusing.



Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Skin protection

Hand protection : Avoid close or long-term contact with skin. Chemical-resistant, impervious gloves complying with an approved standard should be worn when handling the product if a risk assessment deems this necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : In case of inadequate ventilation wear respiratory protection.

Personal protective equipment:



SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state :	Liquid
Colour :	Colourless.
Odor :	slight, ammoniacal
pH at 20°C :	8 - 10
Melting point/freezing point :	-10.5 °C
Initial boiling point and boiling range :	100 °C
Flash point :	Not applicable
Evaporation rate :	Not determined
Flammability (solid, gas) :	Non-flammable.
Upper/lower flammability or explosive limits	Lower - Not Determined Upper – Not Determiner
Vapor pressure :	Not determined
Vapor density :	Not determined
Relative density :	Not determined
Bulk density :	Not determined



Density :	1.088 g/cm ³
Water solubility :	> 100 g/l
Partition coefficient:	Not determined
Auto-ignition temperature :	Not determined
Viscosity :	Dynamic: 1.4 mPa.s @ 20 °C
Kinematic:	Not determined.
Explosive properties :	Non-explosive.
Oxidizing properties :	None

9.2 Other information

No additional information.

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 : The product is stable under regular conditions.

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 : Reactive or incompatible with the following materials:
Oxidizing agents, acids, alkalis Nitrites and nitrates

10.6 Hazardous decomposition: 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

Oral toxicity: LD50: 8471 mg/kg bw (for urea)
Dermal toxicity: LD50: 8200 mg/kg bw (for urea)

Irritation/Corrosion

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

Sensitization



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

Mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

Information on the likely routes of exposure: Not available.

Potential acute health effects

Inhalation : Exposure to decomposition products may cause a health hazard.
Serious effects may be delayed following exposure.
Ingestion : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Eye contact : No known significant effects or critical hazards.

Toxicokinetics

Absorption : Rapidly absorbed.
Distribution : Not metabolized within liver tissues before entering the systemic circulation.
Metabolism : Metabolite is not known to be toxic.
Elimination : The chemical and its metabolites are fully excreted and do not accumulate within the body.
Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: 57-15-6 Urea
EC50>10000 mg/kg (daphnia)

12.2 Persistence and degradability

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

12.3 Bio-accumulative potential

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

12.4 Mobility in soil

Soil/water partition coefficient (KOC): Not available.
Mobility : This product may move with surface or groundwater flows because its water solubility is: high

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.



12.6 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product:

Methods of disposal : The generation of waste should be avoided or minimized 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.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

European waste catalogue (EWC)

Waste code: 06 10 99

Waste designation: wastes not otherwise specified

Packaging:

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

Regulation: ADR/RID

14.1 UN number: Not regulated.
14.2 UN proper shipping name: Not applicable.
14.3 Transport hazard class(es): Not applicable.
14.4 Packing group: Not applicable.

Regulation: IMDG

14.1 UN number: Not regulated.
14.2 UN proper shipping name: Not applicable.
14.3 Transport hazard class(es): Not applicable.
14.4 Packing group: Not applicable.

Regulation: IATA



14.1 UN number: Not regulated.
14.2 UN proper shipping name: Not applicable.
14.3 Transport hazard class(es): Not applicable.
14.4 Packing group: Not applicable.

14.6 Special precautions for user: Transport within user's premises. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV - None of the components are listed.

Substances of very high concern - None of the components are listed.

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

Other EU regulations

Europe inventory: All components are listed or exempted.
Seveso II Directive: This product is not controlled under the Seveso II Directive. National regulations
Notes: To our knowledge no other country or state specific regulations are applicable.

15.2 Chemical Safety Assessment: A Chemical safety assessment has not been carried out

SECTION 16: Other information

Abbreviations and acronyms

EC50: median effective concentration

LC50: median lethal concentration

LD50: median lethal dose

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

N/A = Not available

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

SGG = Segregation Group

PBT = Persistent, Bioaccumulative and Toxic

vPvB = Very Persistent and Very Bioaccumulative

bw = Body weight



Key data sources : Supplier Information

Modifications from last revision:

The specification has been updated and revised in accordance with current requirements

Date: 01/12/2021

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.