

## SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

**BRENNTAG ADBLUE**

Version 5.0

Print Date 2018/07/23

Revision date / valid from 2018/07/23

MSDS code: MVVV483

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

Trade name : BRENNTAG ADBLUE

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

Use of the Substance/Mixture : At this time we do not yet have information on identified uses. They will be included in this safety data sheet when available.

Uses advised against : At this moment we have not identified any uses advised against

**1.3. Details of the supplier of the safety data sheet**

Company : Brenntag UK Limited  
Alpha House, Lawnswood Business Park  
GB LS16 6QY Leeds

Telephone : +44 (0) 113 3879 200  
Telefax : +44 (0) 113 3879 280  
E-mail address : msds@brenntag.co.uk

**1.4. Emergency telephone number**Emergency telephone number : Emergency only telephone number (open 24 hours):  
+44 (0) 1865 407333 (N.C.E.C. Culham)**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008.

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**This substance is not classified as dangerous according to Directive 67/548/EEC.  
Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.**Most important adverse effects**

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Human Health : See section 11 for toxicological information.

Physical and chemical hazards : See section 9/10 for physicochemical information.

Potential environmental effects : See section 12 for environmental information.

### 2.2. Label elements

#### Labelling according to Regulation (EC) No 1272/2008

The product is not labeled as dangerous according to Regulation (EC) No. 1272/2008.

#### Other labelling information:

Further information : Handle in accordance with good industrial hygiene and safety practice.

### 2.3. Other hazards

For Results of PBT and vPvB assessment see section 12.5.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Remarks : No dangerous ingredients according to Regulation (EC) No. 1907/2006

#### Non-hazardous component

Chemical name	Identification Number	Amount [%]
Urea	CAS-No. : 57-13-6 EC-No. 200-315-5 REACH-Reg. No. 01-2119463277-33-xxxx	< 33

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

General advice : No special precautions required.

If inhaled : Remove to fresh air. If symptoms persist, call a physician.

In case of skin contact : Wash off immediately with plenty of water for at least 15

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	minutes. Get medical attention if irritation develops and persists.
In case of eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
If swallowed	: Rinse mouth with water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do NOT induce vomiting.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms	: See Section 11 for more detailed information on health effects and symptoms.
Effects	: See Section 11 for more detailed information on health effects and symptoms.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treatment	: Treat symptomatically.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: No information available.

### 5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting	: Under fire conditions: Carbon monoxide, Carbon dioxide (CO <sub>2</sub> ), Ammonia, Nitrogen oxides (NO <sub>x</sub> )
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### 5.3. Advice for firefighters

Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus. Wear personal protective equipment.
Further advice	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Do not breathe vapours or spray mist.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	: Use personal protective equipment. Avoid contact with skin and eyes. For personal protection see section 8.
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### 6.2. Environmental precautions

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Environmental precautions : Do not flush into surface water or sanitary sewer system.

### 6.3. Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up : Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Keep in suitable, closed containers for disposal.

Further information : Treat recovered material as described in the section "Disposal considerations".

### 6.4. Reference to other sections

For personal protection see section 8.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Advice on safe handling : Keep container tightly closed. Handle in accordance with good industrial hygiene and safety practice.

Hygiene measures : Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Provide adequate ventilation. Avoid contact with the skin and the eyes.

### 7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep only in the original container.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Further information on storage conditions : Keep tightly closed in a dry and cool place. Keep away from heat. Protect from frost.

Advice on common storage : Keep away from food, drink and animal feedingstuffs.

### 7.3. Specific end use(s)

Specific use(s) : No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Other Occupational Exposure Limit Values

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(Additional) Information : Contains no substances with occupational exposure limit values.

Component:	Urea	CAS-No. 57-13-6
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### Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)

DNEL	Workers, Long-term - systemic effects, Skin contact	: 580 mg/kg
DNEL	Workers, Acute - systemic effects, Skin contact	: 580 mg/kg
DNEL	Workers, Long-term - systemic effects, Inhalation	: 292 mg/m <sup>3</sup>
DNEL	Workers, Acute - systemic effects, Inhalation	: 292 mg/m <sup>3</sup>
DNEL	Consumers, Long-term - systemic effects, Skin contact	: 580 mg/kg
DNEL	Consumers, Acute - systemic effects, Skin contact	: 580 mg/kg
DNEL	Consumers, Long-term - systemic effects, Inhalation	: 125 mg/m <sup>3</sup>
DNEL	Consumers, Acute - systemic effects, Inhalation	: 125 mg/m <sup>3</sup>
DNEL	Consumers, Long-term - systemic effects, Ingestion	: 42 mg/kg
DNEL	Consumers, Acute - systemic effects, Ingestion	: 42 mg/kg

### Predicted No Effect Concentration (PNEC)

Fresh water	: 0.047 mg/l
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## 8.2. Exposure controls

### Personal protective equipment

#### *Respiratory protection*

Advice : Required if dust is released  
Dust-mask  
If ventilation is insufficient, suitable respiratory protection must be

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Filter Type : provided  
: P2 filter

*Hand protection*

Advice : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Break through time : > 480 min

*Eye protection*

Advice : Safety goggles

*Skin and body protection*

Advice : Protective work clothing

**Environmental exposure controls**

General advice : Do not flush into surface water or sanitary sewer system.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Form : liquid

Colour : colourless

Odour : ammoniacal

Odour Threshold : no data available

pH : 9 - 10

Melting point/freezing point : -11.5 °C

Initial boiling point and boiling range : 100 °C

Flash point : Not applicable

Evaporation rate : not determined

Flammability (solid, gas) : The product is not flammable.

Upper explosion limit : no data available

Lower explosion limit : no data available

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Vapour pressure	:	not determined
Relative vapour density	:	not determined
Relative density	:	Not determined.
Density	:	1.09 g/cm <sup>3</sup> (20 °C)
Water solubility	:	> 100 g/l miscible
Partition coefficient: n-octanol/water	:	no data available
Auto-ignition temperature	:	no data available
Thermal decomposition	:	100 °C
Viscosity, dynamic	:	1.4 mPa.s (20 °C)
Viscosity, kinematic	:	not determined
Explosivity	:	no data available
Oxidizing properties	:	no data available

**9.2. Other information**

No further information available.

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Advice : No specific test data related to reactivity available for this product or its ingredients.

**10.2. Chemical stability**

Advice : Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

Hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4. Conditions to avoid**

Conditions to avoid : Metals  
Thermal decomposition : 100 °C

**10.5. Incompatible materials**

Materials to avoid : Urea reacts with calcium hypochlorite or sodium hypochlorite to form the explosive nitrogen trichloride. Oxidizing agents, Acids, nitrites, nitrates, alkalis

**BRENNTAG ADBLUE****10.6. Hazardous decomposition products**

Hazardous decomposition : Carbon oxides, nitrogen oxides, ammonia products

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Data for the product****Acute toxicity****Oral**

no data available

**Inhalation**

no data available

**Dermal**

no data available

**Irritation****Skin**

no data available

**Eyes**

no data available

**Sensitisation**

Result : No sensitizing effect known.

**CMR effects****CMR Properties**

Carcinogenicity : no data available

Mutagenicity : no data available

Reproductive toxicity : no data available

**Specific Target Organ Toxicity****Single exposure**



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no data available

### Repeated exposure

no data available

### Other toxic properties

#### Repeated dose toxicity

no data available

### Aspiration hazard

no data available

### Further information

Other relevant toxicity : Handle in accordance with good industrial hygiene and safety information practice.

Experience with human exposure : Health injuries are not known or expected under normal use.,

<b>Component:</b>	<b>Urea</b>	<b>CAS-No. 57-13-6</b>
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### Acute toxicity

#### Oral

|| LD50 : 14300 mg/kg (Rat)

### Irritation

#### Skin

|| Result : (Rabbit; No skin irritation)

#### Eyes

|| Result : No eye irritation (Rabbit)

### Other toxic properties

#### Aspiration hazard

|| No aspiration toxicity classification,

## SECTION 12: Ecological information

**BRENNTAG ADBLUE****12.1. Toxicity**

<b>Component:</b>	<b>Urea</b>	<b>CAS-No. 57-13-6</b>
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**Acute toxicity****Fish**

|| LC50 : > 6810 mg/l (Leuciscus idus (Golden orfe)) (DIN 38412)

**Toxicity to daphnia and other aquatic invertebrates**

|| LC50 : > 10000 mg/l (Daphnia magna; 48 h)

**algae**

|| : > 10000 mg/l (Scenedesmus quadricauda (Green algae); 8 d)

**Bacteria**

|| : > 10000 mg/l (Pseudomonas putida; 16 h)

**12.2. Persistence and degradability****Data for the product****Persistence and degradability****Persistence**

Result : The product is water soluble.

**Biodegradability**

Result : Readily biodegradable

<b>Component:</b>	<b>Urea</b>	<b>CAS-No. 57-13-6</b>
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**Persistence and degradability****Persistence**

||Result : (Related to: Water) The product is water soluble.

**Biodegradability**

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||| Result : 96 % (Exposure Time: 16 d)(OECD Test Guideline 302B) Readily biodegradable.

### 12.3. Bioaccumulative potential

#### Data for the product

##### Bioaccumulation

Result : Bioaccumulation is not expected.

Component:	Urea	CAS-No. 57-13-6
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##### Bioaccumulation

||| Result : log Kow -1.59  
: Bioaccumulation is not expected.

### 12.4. Mobility in soil

#### Data for the product

##### Mobility

Result : The product is water soluble.

Component:	Urea	CAS-No. 57-13-6
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##### Mobility

|| : Not expected to adsorb on soil.

### 12.5. Results of PBT and vPvB assessment

#### Data for the product

##### Results of PBT and vPvB assessment

Result : no data available

Component:	Urea	CAS-No. 57-13-6
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##### Results of PBT and vPvB assessment

||| Result : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent and very bioaccumulating (vPvB).

### 12.6. Other adverse effects

#### Data for the product

**BRENNTAG ADBLUE****Additional ecological information**

Result : Do not flush into surface water or sanitary sewer system.  
Avoid subsoil penetration.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

- Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.
- Contaminated packaging : Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.
- European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

**SECTION 14: Transport information**

Not dangerous goods for ADR, RID, IMDG and IATA.

**14.1. UN number**

Not applicable.

**14.2. UN proper shipping name**

Not applicable.

**14.3. Transport hazard class(es)**

Not applicable.

**14.4. Packaging group**

Not applicable.

**14.5. Environmental hazards**

Not applicable.

**14.6. Special precautions for user**

Not applicable.

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### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IMDG : Not applicable.

## SECTION 15: Regulatory information

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

Component:	Urea	CAS-No. 57-13-6
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|| EU. Regulation No : EC Number: , 200-315-5; Listed  
1451/2007 [Biocides],  
Annex I, OJ (L 325)

|| WGK (DE) : WGK 1: slightly hazardous to water: 118

### 15.2. Chemical safety assessment

no data available

## SECTION 16: Other information

### Abbreviations and Acronyms

<b>BCF</b>	bioconcentration factor
<b>BOD</b>	biochemical oxygen demand
<b>CAS</b>	Chemical Abstracts Service
<b>CLP</b>	Classification, Labelling and Packaging
<b>CMR</b>	carcinogenic, mutagenic or toxic to reproduction
<b>COD</b>	chemical oxygen demand
<b>DNEL</b>	derived no-effect level
<b>EINECS</b>	European Inventory of Existing Commercial Chemical Substances
<b>ELINCS</b>	European List of Notified Chemical Substances
<b>GHS</b>	Globally Harmonized System of Classification and Labelling of Chemicals
<b>LC50</b>	median lethal concentration
<b>LOAEC</b>	lowest observed adverse effect concentration
<b>LOAEL</b>	lowest observed adverse effect level
<b>LOEL</b>	lowest observed effect level

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<b>NLP</b>	no-longer polymer
<b>NOAEC</b>	no observed adverse effect concentration
<b>NOAEL</b>	no observed adverse effect level
<b>NOEC</b>	no observed effect concentration
<b>NOEL</b>	no observed effect level
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>OEL</b>	occupational exposure limit
<b>PBT</b>	persistent, bioaccumulative and toxic
<b>PNEC</b>	predicted no-effect concentration
<b>STOT</b>	specific target organ toxicity
<b>SVHC</b>	substance of very high concern
<b>UVCB</b>	substance of unknown or variable composition, complex reaction products or biological materials
<b>vPvB</b>	very persistent and very bioaccumulative

**Further information**

Key literature references and sources for data : Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.

Methods used for product classification : The classification for human health, physical and chemical hazards and environmental hazards were derived from a combination of calculation methods and if available test data.

Hints for trainings : The workers have to be trained regularly on the safe handling of the products based on the information provided in the Safety Data Sheet and the local conditions of the workplace. National regulations for the training of workers in the handling of hazardous materials must be adhered to.

Other information : The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship.  
The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

|| Indicates updated section.