



AdBlue

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 03/02/2016 Revision date: 23/06/2020 Supersedes version of: 09/10/2018 Version: 1.2

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

1.1. Product identifier

Product form : Mixture
Product name : AdBlue
Product code : 810
Article number : 81000

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Professional use.
Function or use category : Additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

BARDAHL NL - OCD NEDERLAND BV
Maxwellstraat 41
3316 GP Dordrecht
Nederland
T 0031 78 651 2322 - F 0031 78 617 4848
mjkooijman@bardahl.nl - www.bardahl.nl

1.4. Emergency telephone number

Emergency number : +31 (0) 6 54924171
During office hours: 8.30 t/m 17:00 h

Country	Official advisory body	Address	Emergency number	Comment
	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	Only for healthcare professionals

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

No labelling applicable

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2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Water	CAS-No.: 7732-18-5 EC-No.: 231-791-2	67.5	Not classified
Urea	CAS-No.: 57-13-6	32.5	Not classified
ammonia% (Note B)	CAS-No.: 1336-21-6 EC-No.: 215-647-6 EC Index-No.: 007-001-01-2	0.1 – 0.2	Skin Corr. 1B, H314 Aquatic Acute 1, H400

Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
ammonia%	CAS-No.: 1336-21-6 EC-No.: 215-647-6 EC Index-No.: 007-001-01-2	($5 \leq C \leq 100$) STOT SE 3, H335

Note B: Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: '... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Take off immediately all contaminated clothing.
First-aid measures after inhalation : Allow the victim to rest. Allow affected person to breathe fresh air.
First-aid measures after skin contact : Wash skin thoroughly with mild soap and water.
First-aid measures after eye contact : Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart.
First-aid measures after ingestion : Rinse mouth. Give water to drink. 200-300ml.

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

Symptoms/effects : None known.

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

No additional information available

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Carbon dioxide. Dry powder. Sand.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Carbon monoxide. Nitrogen oxides. Ammonia.

5.3. Advice for firefighters

Protection during firefighting : Use self-contained breathing apparatus.
Other information : Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases. Prevent fire fighting water from entering the environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : See Heading 8. Avoid inhalation of vapours. Keep good industrial hygiene.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it.
Flush/dilute with water.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : No special measures required.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials : heat.
Maximum storage period : 18 months
Storage temperature : -11 – 25 °C
Packaging materials : Polyethylene. stainless steel.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

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8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection			
Type	Field of application	Characteristics	Standard
tightly fitting safety goggles			EN 166

8.2.2.2. Skin protection

Skin and body protection:

Rubber apron, boots

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Natural rubber, Latex		0.5		EN ISO 374
Chemically resistant protective gloves	Chloroprene rubber (CR)		0.5		EN ISO 374
Chemically resistant protective gloves	Nitrile rubber (NBR)		0.4		EN ISO 374
Chemically resistant protective gloves	Butyl rubber		0.7		EN ISO 374
Chemically resistant protective gloves	Fluoroelastomer (FKM)		0.7		EN ISO 374
Chemically resistant protective gloves	Polyvinylchloride (PVC)		0.7		EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. EN 14387

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:

Handle in accordance with good industrial hygiene and safety procedures.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: Light. ammonia odour.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: $\approx 100\text{ }^{\circ}\text{C}$ 1.013 bar
Flammability	: Not available
Explosive properties	: Not self-igniting.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 9 – 10 20°C DIN ISO 976
Viscosity, kinematic	: Not available
Viscosity, dynamic	: 2.5 mPa·s (20°C, 313 1/s)
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: -1.73
Vapour pressure	: Not available
Vapour pressure at 50°C	: 23 bar 20°C
Density	: 1.087 – 1.093 g/cm ³ (20°C) IOS 2811-3
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

Stable under normal conditions.

10.4. Conditions to avoid

Heat. Above a temperature of. 35°C c.c.

10.5. Incompatible materials

magnesium. Non-ferrous metal compounds. Aluminium.

10.6. Hazardous decomposition products

Ammonia.

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SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Urea (57-13-6)	
LD50 oral rat	15000 mg/kg
Skin corrosion/irritation	: Not classified pH: 9 – 10 20°C DIN ISO 976
Serious eye damage/irritation	: Not classified pH: 9 – 10 20°C DIN ISO 976
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Not classified

Urea (57-13-6)	
LC50 - Fish [1]	> 6810 mg/l (Leuciscus idus)
EC50 - Crustacea [1]	1000 mg/l

12.2. Persistence and degradability

AdBlue	
Biodegradation	98 % DOC Reduction (16d)

12.3. Bioaccumulative potential

AdBlue	
Partition coefficient n-octanol/water (Log Pow)	-1.73

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

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12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Completely empty the packaging prior to decontamination. Recycle after cleaning. Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with / / / ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
3	Composition/information on ingredients	Modified	
4.1	First-aid measures general	Added	
4.1	First-aid measures after inhalation	Added	
4.1	First-aid measures after skin contact	Modified	
4.1	First-aid measures after ingestion	Modified	
4.1	First-aid measures after eye contact	Modified	
4.2	Symptoms/effects	Added	
5.1	Suitable extinguishing media	Modified	
5.3	Protection during firefighting	Added	
5.3	Other information	Added	
6.1	General measures	Modified	
6.3	Methods for cleaning up	Modified	
7.2	Packaging materials	Added	

Indication of changes			
Section	Changed item	Change	Comments
7.2	Maximum storage period	Added	
7.2	Incompatible materials	Modified	
7.2	Storage temperature	Modified	
8.2	Other information	Modified	
8.2	Skin and body protection	Added	
8.2	Respiratory protection	Modified	
9.1	Vapour pressure at 50°C	Added	
9.1	Log Pow	Added	
9.1	Viscosity, dynamic	Modified	
9.1	Density	Modified	
9.1	Boiling point	Modified	
9.1	pH	Modified	
10.3	Possibility of hazardous reactions	Modified	
10.4	Conditions to avoid	Added	
10.5	Incompatible materials	Modified	
10.6	Hazardous decomposition products	Modified	
12.2	Biodegradation	Added	
12.3	Log Pow	Added	
13.1	Waste disposal recommendations	Modified	

Abbreviations and acronyms:	
	<p>Abbreviations and acronyms:</p> <p>RID: Regulations Concerning the International Transport of Dangerous Goods by Rail</p> <p>ICAO: International Civil Aviation Organization</p> <p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road</p> <p>IMDG: International Maritime Code for Dangerous Goods</p> <p>IATA: International Air Transport Association</p> <p>GHS: Globally Harmonized System of Classification and labelling of Chemicals</p> <p>EINECS: European Inventory of Existing Commercial Chemical Substances</p> <p>ELINCS: European List of Notified Chemical Substances</p> <p>CAS: Chemical Abstracts Service (division of the American Chemical Society)</p> <p>VOC: Volatile Organic Compounds (USA, EU)</p> <p>LC50: Lethal concentration, 50 percent</p> <p>LD50: Lethal dose, 50 percent</p>

Full text of H- and EUH-statements:	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

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Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.