



SAFETY DATA SHEET

AdBlue

1. Identification of the substance/preparation and company/undertaking

Product name	: AdBlue
Use of the substance/preparation	: Additive for reduction of NOx emission from diesel engine exhausts.
Supplier	: GreenChem BV Keijzerstraat 17 NL-4811HL Breda Tel. +31 76 5812727 Fax. +31 76 5812571
Emergency telephone number	: +49 151 167 110 61

2. Composition/information on ingredients

Substance/preparation	: Preparation
Chemical characterisation	: Waterbased.

There are no ingredients or additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

3. Hazards identification

The preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification	: Not classified. No known significant effects or critical hazards.
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See section 11 for more detailed information on health effects and symptoms.

4. First-aid measures

Inhalation	: Move exposed person to fresh air. Obtain medical attention if symptoms occur. 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.
Ingestion	: Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Obtain medical attention if symptoms occur.
Skin contact	: Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Obtain medical attention if symptoms occur.
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
General	: Move the victim to a safe area as soon as possible. If unconscious, place in recovery position and seek medical advice. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Allow the victim to rest in a well-ventilated area.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training.

See section 11 for more detailed information on health effects and symptoms.

5. Fire-fighting measures

Extinguishing media

- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : In a fire or if heated, a pressure increase will occur and the container may burst. 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.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
- 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.

6. Accidental release measures

- Personal precautions** : Provide adequate ventilation. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Absorb with dry earth, sand or other non-combustible material. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.
- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with liquid-binding material (sand, diatomite, universal binders etc.) or use a spill kit.

7. Handling and storage

- Handling** : Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Provide adequate ventilation.
- Storage** : Keep container tightly closed and sealed until ready for use. Use appropriate containment to avoid environmental contamination. Store away from incompatible materials (see section 10). Keep away from food, drink and animal feeding stuffs.
- Packaging materials**
- Recommended** : Use original container.

8. Exposure controls/personal protection

Exposure limit values

Ingredient name

Occupational exposure limits

No exposure limit value known.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Exposure controls

- Occupational exposure controls** : Provide adequate ventilation.
- Respiratory protection** : Wear appropriate respirator when ventilation is inadequate. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Recommended : organic vapour filter (Type A) , ammonia filter (Type K)

8. Exposure controls/personal protection

Hand protection	: Use chemical-resistant, impervious gloves.
Eye protection	: Use safety eyewear designed to protect against splash of liquids.
Skin protection	: Avoid contact with skin. Wear suitable protective clothing.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

9. Physical and chemical properties

Appearance

Physical state	: Liquid.
Colour	: Colourless. to Turbid.
Odour	: None identified.

Important health, safety and environmental information

pH	: 8 to 11
Viscosity	: Dynamic: 1,4 mPa·s (1,4 cP) [25 °C]
Density	: 1,09 g/cm ³ [20°C (68°F)]
Melting point	: -11,5°C (11,3°F)
Boiling point	: 103°C (217,4°F)
Solubility	: Easily soluble in the following materials: cold water and hot water.

10. Stability and reactivity

Stability	: The product is stable. Under normal conditions of storage and use, hazardous polymerisation will not occur.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Potential acute health effects

Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
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Potential chronic health effects

No known significant effects or critical hazards.

Over-exposure signs/symptoms

No specific data.

12. Ecological information

Environmental effects	: The preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.
Aquatic ecotoxicity	
Conclusion/Summary	: Practically non-toxic to aquatic organisms.
Biodegradability	
Conclusion/Summary	: Readily biodegradable

13. Disposal considerations

Methods of disposal	: 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. 16 03 06 organic wastes other than those mentioned in 16 03 05
Hazardous waste	: Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADR/RID Class	Not regulated.	-	-	-		-
ADNR Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA Class	Not regulated.	-	-	-		-

PG* : Packing group

15. Regulatory information

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Risk phrases : This product is not classified according to EU legislation.

Product use : Industrial applications.

Europe inventory : **Europe inventory:** All components are listed or exempted.

Poison class : Not regulated

BAG T : 619000

VOC content : Liberated.

16. Other information

History

Date of issue : 02.01.2007.

Date of previous issue : 30.10.2006.

Version : 2

☑ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.