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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 08.01.2018 / 0001

Replacing version dated / version: 08.01.2018 / 0001

Valid from: 08.01.2018 PDF print date: 09.01.2018 AdBlue® 5000 ml Art.: 9090498

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

1.1 Product identifier

AdBlue® 5000 ml Art.: 9090498

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

Industrial use

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet



BTI Befestigungstechnik GmbH & Co. KG, Salzstr. 51, 74653 Ingelfingen, Germany Phone:+49 7940 141 256, Fax:+49 7940 141 9256 Stefan.Haug@bti.de, www.bti.de

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (BRC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

The mixture is not classified as dangerous in the terms of the Regulation (EC) 1272/2008 (CLP).

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)

Not applicable

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).





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SECTION 3: Composition/information on ingredients

3.1 Substance

n.a.

3.2 Mixture

| Registration number (REACH) | |
|---|--|
| Index | |
| EINECS, ELINCS, NLP | |
| CAS | |
| content % | |
| Classification according to Regulation (EC) 1272/2008 | |
| (CLP) | |

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

Inhalation

Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water.

Give copious water to drink - consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1. In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Adapt to the nature and extent of fire.

Water jet spray/foam/CO2/dry extinguisher

Unsuitable extinguishing media

None known

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:





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Oxides of carbon

Oxides of nitrogen

Toxic gases

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient supply of air.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent from entering drainage system.

Prevent surface and ground-water infiltration, as well as ground penetration.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.

Flush residue using copious water.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.

Avoid contact with eyes.

Avoid long lasting or intensive contact with skin.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Store product closed and only in original packing.

Not to be stored in gangways or stair wells.

Store at room temperature.

Protect from frost.

7.3 Specific end use(s)





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No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

| Urea | | | | | | |
|---------------------|--|---------------------------------|----------------|-------|-------|------|
| Area of application | Exposure route / Environmental compartment | Effect on health | Descript or | Value | Unit | Note |
| | Environment - freshwater | | PNEC | 0,047 | mg/l | |
| Consumer | Human - dermal | Short term, systemic effects | DNEL | 580 | mg/kg | |
| Consumer | Human - dermal | Long term, systemic effects | DNEL | 580 | mg/kg | |
| Consumer | Human - inhalation | Short term, systemic effects | DNEL | 125 | mg/m3 | |
| Consumer | Human - inhalation | Long term, systemic effects | DNEL | 125 | mg/m3 | |
| Consumer | Human - oral | Short term, systemic effects | DNEL | 42 | mg/kg | |
| Consumer | Human - oral | Long term, systemic effects | DNEL | 42 | mg/kg | |
| Workers / employees | Human - dermal | Short term, systemic effects | DNEL | 580 | mg/kg | |
| Workers / employees | Human - dermal | Long term, systemic effects | DNEL | 580 | mg/kg | |
| Workers / employees | Human - inhalation | Short term, systemic effects | DNEL | 292 | mg/m3 | |
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 292 | mg/m3 | |

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:





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Tight fitting protective goggles (EN 166) with side protection, with danger of projections.

Skin protection - Hand protection:

Chemical resistant protective gloves (EN 374).

Recommended

Protective nitrile gloves (EN 374) Protective PVC gloves (EN 374) Minimum layer thickness in mm:

0,4

Permeation time (penetration time) in minutes:

240

Protective hand cream recommended.

The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions

The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

Normally not necessary.

Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:

Colour:

Colourless

Odour:

Characteristic

Odour threshold:

PH-value:

Melting point/freezing point:

Liquid

Colourless

Characteristic

Not determined

Not determined





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Initial boiling point and boiling range:

Flash point:

Evaporation rate:

Flammability (solid, gas):

Not determined

Not determined

n.a.

Lower explosive limit:

Upper explosive limit:

Vapour pressure:

Not determined

Not determined

Not determined

Not determined

Not determined

Not determined

Density: 1,09 g/cm3 (DIN 51757)

Bulk density: n.a.

Solubility(ies):
Water solubility:
Mixable
Partition coefficient (n-octanol/water):
Not determined
Auto-ignition temperature:
Not determined
Decomposition temperature:
Not determined
Viscosity:
Not determined

Explosive properties: Product is not explosive.

Oxidising properties: No

9.2 Other information

Miscibility: Not determined Fat solubility / solvent: Not determined Conductivity: Not determined Surface tension: Not determined Solvents content: Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known.

10.4 Conditions to avoid

None known

10.5 Incompatible materials

Nitrites

Oxidizing agents

10.6 Hazardous decomposition products

No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

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|----------------------------------|-------------|------|----------|-------------|-------|
| | ndpoi Value | Unit | Organism | Test method | Notes |





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| Acute toxicity, by oral | | n.d.a. |
|----------------------------|--|--------|
| route: | | |
| Acute toxicity, by | | n.d.a. |
| dermal route: | | |
| Acute toxicity, by | | n.d.a. |
| inhalation: | | |
| Skin corrosion/irritation: | | n.d.a. |
| Serious eye | | n.d.a. |
| damage/irritation: | | |
| Respiratory or skin | | n.d.a. |
| sensitisation: | | |
| Germ cell mutagenicity: | | n.d.a. |
| Carcinogenicity: | | n.d.a. |
| Reproductive toxicity: | | n.d.a. |
| Specific target organ | | n.d.a. |
| toxicity - single | | |
| exposure (STOT-SE): | | |
| Specific target organ | | n.d.a. |
| toxicity - repeated | | |
| exposure (STOT-RE): | | |
| Aspiration hazard: | | n.d.a. |
| Symptoms: | | n.d.a. |

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

| AdBlue® 5000 ml | | | | | <u> </u> | | |
|--------------------|----------|------|-------|------|----------|-------------|--------|
| Art.: 9090498 | | | | | | | |
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to | | | | | | | n.d.a. |
| fish: | | | | | | | |
| 12.1. Toxicity to | | | | | | | n.d.a. |
| daphnia: | | | | | | | |
| 12.1. Toxicity to | | | | | | | n.d.a. |
| algae: | | | | | | | |
| 12.2. Persistence | | | | | | | n.d.a. |
| and degradability: | | | | | | | |
| 12.3. | | | | | | | n.d.a. |
| Bioaccumulative | | | | | | | |
| potential: | | | | | | | |
| 12.4. Mobility in | | | | | | | n.d.a. |
| soil: | | | | | | | |
| 12.5. Results of | | | | | | | n.d.a. |
| PBT and vPvB | | | | | | | |
| assessment | | | | | | | |
| 12.6. Other | | | | | | | n.d.a. |
| adverse effects: | | | | | | | |





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| Other information: | | | | DOC- |
|--------------------|--|--|--|--------------|
| | | | | elimination |
| | | | | degree(comp |
| | | | | lexing |
| | | | | organic |
| | | | | substance)>= |
| | | | | 80%/28d: |
| | | | | n.a. |

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

07 01 01 aqueous washing liquids and mother liquors

16 05 09 discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information

General statements

14.1. UN number: n.a.

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

14.3. Transport hazard class(es):n.a.14.4. Packing group:n.a.Classification code:n.a.LQ:n.a.

14.5. Environmental hazards: Not applicable

Tunnel restriction code:

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

14.3. Transport hazard class(es):n.a.14.4. Packing group:n.a.Marine Pollutant:n.a

14.5. Environmental hazards: Not applicable





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Transport by air (IATA)

14.2. UN proper shipping name:

14.3. Transport hazard class(es): n.a. 14.4. Packing group: n.a.

14.5. Environmental hazards: Not applicable

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Non-dangerous material according to Transport Regulations.

SECTION 15: Regulatory information

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

0 %

Observe restrictions:

General hygiene measures for the handling of chemicals are applicable.

Directive 2010/75/EU (VOC):

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: n.a.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Not applicable

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

Any abbreviations and acronyms used in this document:

AC Article Categories

acc., acc. to according, according to

ACGIH American Conference of Governmental Industrial Hygienists

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European

Agreement concerning the International Carriage of Dangerous Goods by Road)

AOEL Acceptable Operator Exposure Level

AOX Adsorbable organic halogen compounds

approx. approximately Art., Art. no. Article number

ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)





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BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)

BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and

Safety, Germany)

BCF Bioconcentration factor

BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)

BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)

BMGVBiological monitoring guidance value (EH40, UK)

BOD Biochemical oxygen demand

BSEF Bromine Science and Environmental Forum

bw body weight

CAS Chemical Abstracts Service

CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids

CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques

CIPACCollaborative International Pesticides Analytical Council

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

COD Chemical oxygen demand

CTFA Cosmetic, Toiletry, and Fragrance Association

DMEL Derived Minimum Effect Level

DNEL Derived No Effect Level

DOC Dissolved organic carbon

DT50 Dwell Time - 50% reduction of start concentration

DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)

dw dry weight

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EC European Community

ECHA European Chemicals Agency

EEA European Economic Area

EEC European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

EN European Norms

EPA United States Environmental Protection Agency (United States of America)

ERC Environmental Release Categories

ES Exposure scenario

etc. et cetera

EU European Union

EWC European Waste Catalogue

Fax. Fax number gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

HET-CAM Hen's Egg Test - Chorionallantoic Membrane

HGWPHalocarbon Global Warming Potential

IARC International Agency for Research on Cancer

IATA International Air Transport Association

IBC Intermediate Bulk Container



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IBC (Code) International Bulk Chemical (Code)

IC Inhibitory concentration

IMDG-code International Maritime Code for Dangerous Goods

incl. including, inclusive

IUCLID International Uniform ChemicaL Information Database

LC lethal concentration

LC50 lethal concentration 50 percent kill LCLo lowest published lethal concentration

LD Lethal Dose of a chemical LD50 Lethal Dose, 50% kill LDLo Lethal Dose Low

LOAEL Lowest Observed Adverse Effect Level

LOEC Lowest Observed Effect Concentration

LOEL Lowest Observed Effect Level

LQ Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships

n.a. not applicablen.av. not availablen.c. not checkedn.d.a. no data available

NIOSH National Institute of Occupational Safety and Health (United States of America)

NOAEC No Observed Adverse Effective Concentration

NOAEL No Observed Adverse Effect Level

NOEC No Observed Effect Concentration NOEL No Observed Effect Level

ODP Ozone Depletion Potential

OECD Organisation for Economic Co-operation and Development

org. organic

PAH polycyclic aromatic hydrocarbon PBT persistent, bioaccumulative and toxic

PC Chemical product category

PE Polyethylene

PNEC Predicted No Effect Concentration POCP Photochemical ozone creation potential

ppm parts per millionPROC Process categoryPTFE Polytetrafluorethylene

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No

1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)

REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SADT Self-Accelerating Decomposition Temperature

SAR Structure Activity Relationship

SU Sector of use

SVHC Substances of Very High Concern

Tel. Telephone

ThOD Theoretical oxygen demand

TOC Total organic carbon





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TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).

WHO World Health Organization

wwt weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.