

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 08.03.2016

Version number 103

Revision: 07.01.2016

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

##### - 1.1 Product identifier

- Trade name **AdBlue® Harnstofflsg. 32,5% CDS**

- Article number: 1001360301004

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

The substance is not classified as dangerous and/or is no subject to the requirement to produce a Chemical Safety Report under REACH, therefore no exposure scenarios are required for this safety data sheet.

- Application of the substance / the mixture NOx reduction in exhaust gases.

##### - 1.3 Details of the supplier of the safety data sheet

###### - Manufacturer/Supplier:

Staub & Co. - Silbermann GmbH

Ostendstraße 124

D-90482 Nürnberg

Tel.: 0911 / 5482 - 0

Fax: 0911-5482 -119

Mail: info@staub-silbermann.de

###### - Informing department:

Abteilung HSE

e-Mail: sdb@staub-silbermann.de

##### - 1.4 Emergency telephone number:

Poison Control Center, Mainz

Tel. 00 49 / 61 31 / 19 240

#### 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 according to the CLP regulation.

##### - 2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008 Void

- Hazard pictograms Void

- Signal word Void

- Hazard statements Void

##### - 2.3 Other hazards

- Results of PBT and vPvB assessment

- PBT: Not applicable.

- vPvB: Not applicable.

#### SECTION 3: Composition/information on ingredients

##### - 3.2 Mixtures

- Description: Mixture of the substances listed below with harmless additions (aqueous solution).

###### - Dangerous components:

CAS: 57-13-6	urea	25-50%
EINECS: 200-315-5		
Reg.nr.: 01-2119463277-33		

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### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General advice:** Instantly remove any clothing soiled by the product.
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact**  
Instantly wash with water and soap and rinse thoroughly. If skin irritation persists, seek medical advice.
- **After eye contact**  
Rinse opened eye for 15 minutes under running water.  
Consult a doctor in case of symptoms.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
In case of persistent symptoms consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Information for doctor** Symptomatic treatment.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Product is non-flammable. Use fire fighting measure that suit the surroundings.
- **5.2 Special hazards arising from the substance or mixture**  
Can be released in case of fire:  
carbon oxides (COx)  
Nitrogen oxides (NOx)  
Hydrogen cyanide (HCN)  
Ammonia vapours
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment and keep unprotected persons away.  
Avoid eye and skin contact.
- **6.2 Environmental precautions:**  
Prevent material from reaching sewage system, holes and cellars.  
Dilute with much water.  
If large amounts are released, the authorities must be informed.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste according to item 13.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.

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### SECTION 7: Handling and storage

#### - 7.1 Precautions for safe handling

Open and handle container with care.

Ensure good ventilation/exhaustion at the workplace. Avoid repeated or long-term skin contact.

- **Information about protection against explosions and fires:** No special measures required.

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

- **Storage** Store in cool, dry conditions in well sealed containers.

- **Requirements to be met by storerooms and containers:**

Observe official regulations on storage and handling of water hazardous substances

- **Information about storage in one common storage facility:** Store away from oxidising agents.

- **Further information about storage conditions:**

Protect from heat and direct sunlight.

Storage temperature: > -10 - < 25 °C

- **Storage class 12** (VCI - Konzept, 2007)

- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

#### - 8.1 Control parameters

- **Components with critical values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

#### - DNELs

##### 57-13-6 urea

Oral	DNEL (population)	42 mg/kg bw/day (Long-term - systemic effects)
Dermal	DNEL (worker)	580 mg/kg bw/day (Long-term - systemic effects)
	DNEL (population)	580 mg/kg bw/day (Long-term - systemic effects)
Inhalative	DNEL (worker)	292 mg/m <sup>3</sup> (Long-term - systemic effects)
	DNEL (population)	125 mg/m <sup>3</sup> (Long-term - systemic effects)

#### - PNECs

##### 57-13-6 urea

PNEC 0.047 mg/l (fresh water)

- **Additional information:** The lists that were valid during the compilation were used as basis.

#### - 8.2 Exposure controls

- **Personal protective equipment**

- **General protective and hygienic measures**

Do not eat, drink or smoke while working.

The usual precautionary measures should be adhered to in handling the chemicals.

Keep away from food, beverages and fodder.

Wash hands during breaks and at the end of the work.

Avoid close or long term contact with the skin.

- **Breathing equipment:**

Not necessary if room is well-ventilated.

Use breathing protection in case of insufficient ventilation.

- **Recommended filter device for short term use:** Filter B

- **Protection of hands:** Protective gloves.

- **Material of gloves**

Butyl rubber, BR

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Natural rubber, NR

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Not suitable are gloves made of the following materials:** Leather gloves
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

### \* SECTION 9: Physical and chemical properties

#### - 9.1 Information on basic physical and chemical properties

##### - General Information

##### - Appearance:

Form:	Fluid
Colour:	Colourless
Smell:	Weak, characteristic
Odour threshold:	Not determined

- pH-value (100 g/l) at 20 °C: < 10

##### - Change in condition

Melting point/Melting range:	~ - 11.5 °C
Boiling point/Boiling range:	106 - 110 °C

- Flash point: Product is non-flammable nor potentially explosive

- Inflammability (solid, gaseous) Product is not inflammable.

##### - Ignition temperature:

Decomposition temperature: Not determined

- Self-inflammability: Product is not selfigniting.

- Danger of explosion: Product is not potentially explosive

- Vapour pressure at 20 °C: 23 hPa

Density at 20 °C	1.09 g/cm <sup>3</sup>
Relative density	Not determined
Vapour density	Not determined
Evaporation rate	Not determined

##### - Solubility in / Miscibility with

Water: Fully miscible

- Partition coefficient (n-octanol/water): -2.59 log POW (urea)

##### - Viscosity:

dynamic at 20 °C:	~ 1 mPas
kinematic:	Not determined

- 9.2 Other information No further relevant information available.

### SECTION 10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.

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- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** Formation of ammonia.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
  - Strong bases
  - Strong oxidizing agents (permanganates, chromates, nitrates, nitrites, chlorine, hypochlorites)
- **10.6 Hazardous decomposition products:**
  - Ammonia
  - Nitrogen oxides (NOx)
  - (possible HCN)

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
  - **Acute toxicity** Based on available data, the classification criteria are not met.
- |   |      |                  |
|---|------|------------------|
| <b>- LD/LC50 values that are relevant for classification:</b> |      |                  |
| Oral  | LD50 | 8471 mg/kg (rat) |
- **Primary irritant effect:**
  - **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
  - **Serious eye damage/irritation** Slight irritant
  - **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
  - **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
  - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
  - **Carcinogenicity** Based on available data, the classification criteria are not met.
  - **Reproductive toxicity** Based on available data, the classification criteria are not met.
  - **STOT-single exposure** Based on available data, the classification criteria are not met.
  - **STOT-repeated exposure** Based on available data, the classification criteria are not met.
  - **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- |                            |  |
|----------------------------|--|
| <b>- Aquatic toxicity:</b> |  |
| LC 50                      | > 10000 mg/l ( <i>Leuciscus idus</i> ) |
| LC 0 / 48 h                | > 6800 mg/l ( <i>Leuciscus idus</i> )  |
- **12.2 Persistence and degradability** biodegradable
  - **12.3 Bioaccumulative potential**
    - Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.
    - Water soluble. Adsorption to soil is low.
  - **12.4 Mobility in soil** No further relevant information available.
  - **Ecotoxicological effects:**
- |  |                          |
|--|--------------------------|
| <b>- Respiratory inhibition of communal activated sludge EC 20 (mg/l according to ISO 8192 B):</b> |                          |
| EC 10  | > 120000 mg/l (Bacteria) |
- **Additional ecological information:**
  - **General notes:**
    - Do not allow to enter drainage system, surface or ground water
    - Water hazard class 1 (Self-assessment): slightly hazardous for water.

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- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Must be specially treated under adherence to official regulations.
- **Waste disposal key number:**  
Since 01/01/99 the waste code numbers have not only been product-related but are also essentially application-related. The valid waste code number of the application can be obtained from the European waste catalogue.
- **Uncleaned packagings:** Disposal must be made according to official regulations.
- **Recommendation:** Containers may be completely emptied and cleaned and send to be reconditioned or recycled.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

### SECTION 14: Transport information

- <b>14.1 UN-Number</b> - <b>ADR, IMDG, IATA</b>	Void
- <b>14.2 UN proper shipping name</b> - <b>ADR, IMDG, IATA</b>	Void
- <b>14.3 Transport hazard class(es)</b> - <b>ADR, IMDG, IATA</b> - <b>Class</b>	Void
- <b>14.4 Packing group</b> - <b>ADR, IMDG, IATA</b>	Void
- <b>14.6 Special precautions for user</b>	Not applicable.
- <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
- <b>Transport/Additional information:</b>	Not dangerous according to the above specifications.
- <b>UN "Model Regulation":</b>	Void

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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### SECTION 16: Other information

*These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**- Department issuing data specification sheet:**

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Am Stadtholz 37

D-33609 Bielefeld

Tel.: +49/521/3037-0

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**- Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organisation*

*LEV: Local Exhaust Ventilation*

*RPE: Respiratory Protective Equipment*

*RCR: Risk Characterisation Ratio (RCR= PEC/PNEC)*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*GHS: Globally Harmonized System of Classification and Labelling of Chemicals*

*CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008)*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*TRGS: Technische Regeln für Gefahrstoffe (Technical Rules for Dangerous Substances, BAuA, Germany)*

*ISO: International Organisation for Standardisation*

*DNEL: Derived No-Effect Level (REACH)*

*PNEC: Predicted No-Effect Concentration (REACH)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*vPvB: very Persistent and very Bioaccumulative*

**- \* Data compared to the previous version altered.**