

**Safety data sheet**  
**complying with Regulation 1907/2006/EC (REACH Regulation),**  
**EU 2020/878 and Regulation No 1272/2008/EC (CLP)**

Printing date 30.10.2024

Version number 4 (replaces version 3)

Revision: 30.10.2024

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name:** AdBlue®**1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

**Application of the substance / the mixture:**

Exhaust gas purification device

NOx reduction

**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Company responsible for the placing on the market:

LPC S.A.

Megaridos Avenue 124

Aspropyrgos - Attica , 193 00

Tel.: 210 - 809 3900

Fax: 210 - 809 3999

e-mail: technical@cyclon.gr

**1.4 Emergency telephone number:**

European Emergency Tel.: 112

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation EC No 1272/2008 CLP:**

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

**2.2 Label elements****Labelling according to Regulation EC No 1272/2008 CLP:** Void**Hazard pictograms:** Void**Signal word:** Void**Hazard statements:** Void**2.3 Other hazards****Results of PBT and vPvB assessment**

The product does not contain ingredients that are considered either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**PBT:** Not applicable.**vPvB:** Not applicable.**Determination of endocrine-disrupting properties**

The product does not contain substances included in the list established in accordance with Article 59(1) of REACH for endocrine disrupting properties or has not been identified as having endocrine disrupting properties according to the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or higher than 0.1%.

EN

(Contd. on page 2)

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(Contd. of page 1)

**SECTION 3: Composition/information on ingredients****3.2 Mixtures****Description:** Mixture: consisting of the following components.**Ingredients according Regulation (EU) 2020/878:**

CAS: 57-13-6 EINECS: 200-315-5 Reg.nr.: 01-2119463277-33-XXXX	Urea	≥25-<35%
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**SVHC**

This product does not contain candidate substances of very high concern at a concentration ≥0.1% (Regulation (EC) No 1907/2006 (REACH), Article 59)

**Additional information:** For the wording of the listed hazard phrases refer to section 16.

**SECTION 4: First aid measures****4.1 Description of first aid measures**

**General information:** Take affected persons out into the fresh air.

**After inhalation:**

Supply fresh air; consult doctor in case of complaints.

In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:**

Remove contaminated clothing.

In case of discomfort, consult a doctor.

**After eye contact:**

Immediately rinse the eyes with plenty of water, alternately lifting the upper and lower eyelids.

Check and remove contact lenses if any.

Continue to rinse for 15 minutes.

Seek medical attention if irritation occurs.

Avoid strong water jet-risk of cornea damage, consult a doctor.

**After swallowing:**

Drink plenty of water and provide fresh air. Call for a doctor immediately.

Consult the doctor immediately and show the label or this Safety Data Sheet.

Never give anything by mouth to an unconscious person.

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

There are no known or expected symptoms.

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

No special measures are required.

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray.

Use fire extinguishing methods suitable to surrounding conditions.

**5.2 Special hazards arising from the substance or mixture**

In a fire it is possible to release nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) & sulphur dioxide (SO<sub>2</sub>).

(Contd. on page 3)

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(Contd. of page 2)

**5.3 Advice for firefighters****Protective equipment:** Self-contained breathing apparatus and protective clothing in case of fire.**Additional information**

Collect contaminated fire fighting water separately. It must not enter the sewage system.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Keep unprotected persons away.

**6.1.1 For non-emergency personnel** Avoid contact with skin and eyes.**6.1.2 For emergency responders** Use chemicals resistant gloves.**6.2 Environmental precautions:** Dilute with plenty of water.**6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust, silica gel).

Treat recovered material as described in Chapter 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 disposal information.

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**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Use adequate personal protective equipment as required. For more information regarding protective equipment see section 8.

Avoid contact with skin and eyes.

Wash contaminated clothes before reusing them.

Wash your hands before each break and after finishing work.

**Information about fire - and explosion protection:**

Keep away from heat, sparks, open flames and hot surfaces.

**7.2 Conditions for safe storage, including any incompatibilities****Storage:** Store in tightly closed containers, in a cool and dry place with good ventilation.**Requirements to be met by storerooms and receptacles:**

Store in a cool and dry place.

Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE), Stainless steel 1.4541, Stainless steel 1.4571 (examples are given in ISO 22241-3:2017(E), paragraph 4.1.2, Table 1).

Unsuitable materials for containers: Paper/Fibreboard, iron, tinned carbon steel (Tinplate), Copper, Aluminium, glass, brass, Galvanized carbon steel (Zinc), zinc (examples are given in ISO 22241-3:2017(E), paragraph 4.1.3, Table 2).

**Further information about storage conditions:**

Do not store in direct exposure to sunlight.

Prolonged transportation or storing above 30 °C should be avoided.

In order to prevent solidification of AUS 32, storage below -5 °C should be avoided.

Recommended storage temperature: -5 °C to 25 °C. In order to protect AUS 32 from any contamination carried by the air, well-closed containers or vented containers with filters should be used.

(Contd. on page 4)

— EN —

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Trade name: AdBlue®

(Contd. of page 3)

### 7.3 Specific end use(s)

Is expected to remain within the specifications given in ISO 22241-1 for at least the time periods specified in Table 3 as a function of the constant ambient temperature at which the it is stored.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with limit 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.

### 8.2 Exposure controls

#### 8.2.1. Appropriate engineering controls Provide adequate ventilation.

#### Individual protection measures, such as personal protective equipment

##### General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Avoid contact with skin and eyes.

Do not eat, drink or smoke while using the product.

Keep away from foodstuffs, beverages and feed.

Be sure to clean skin thoroughly after work and before breaks.

Remove contaminated clothes and wash before reusing them.

##### Respiratory protection:



Use suitable respiratory protective device in case of insufficient ventilation.

##### Hand protection



Protective gloves resistant to chemicals (standard EN 374-1)

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

##### Material of gloves

Rubber gloves.

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.

##### Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

##### Eye/face protection



Goggles recommended during refilling

(Contd. on page 5)

# Safety data sheet

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Version number 4 (replaces version 3)

Revision: 30.10.2024

Trade name: AdBlue®

(Contd. of page 4)

## Body protection:



Protective work clothing

**Environmental exposure controls** No further recommendations. See section 6 & 7.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

Physical state	Liquid
Colour:	transparent
Odour:	Characteristic
Odour threshold:	Not determined
Melting point/freezing point:	-11 °C
Boiling point or initial boiling point and boiling range	Not specified
Flammability	Not applicable
Lower and upper explosion limit	
Lower:	Not determined
Upper:	Not determined
Flash point:	Not Flammable
Auto-ignition temperature:	Not specified
Decomposition temperature:	Not determined
pH	7-10
Viscosity:	
Kinematic viscosity	Not determined
Dynamic:	Not determined
Solubility	
water:	Fully miscible
Partition coefficient n-octanol/water (log value)	Not determined
Vapour pressure:	Not determined
Density and/or relative density	
Density at 20 °C:	1.087-1.093 g/cm <sup>3</sup>
Relative density	Not determined
Vapour density	Not determined

### 9.2 Other information

Appearance:	
Form:	Liquid
Important information on protection of health and environment, and on safety.	
Ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Change in condition	Not applicable
Fusion temperature / range:	Not applicable

(Contd. on page 6)

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Revision: 30.10.2024

Trade name: AdBlue®

(Contd. of page 5)

<b>Oxidising properties</b>	Not classified as an oxidizer according to CLP Regulation 1272/2008/EC.
<b>Evaporation rate</b>	Not determined

**Information with regard to physical hazard classes**

Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

## SECTION 10: Stability and reactivity

**10.1 Reactivity** Stable under normal conditions

**10.2 Chemical stability** Material is stable under normal conditions.

**Thermal decomposition / conditions to be avoided**

No decomposition if used and stored according to specifications.

Stable at environment temperature.

**10.3 Possibility of hazardous reactions** No dangerous reactions known.

**10.4 Conditions to avoid** Avoid heat, flames, sparks, other sources of ignition.

**10.5 Incompatible materials** Oxidising agents

**10.6 Hazardous decomposition products**

Nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) & sulfur dioxide (SO<sub>2</sub>).

## SECTION 11: Toxicological information

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
**Acute toxicity** Based on available data, the classification criteria are not met.

**LD/LC50 values relevant for classification:**
**CAS: 57-13-6 Urea**

Oral	LD50	11,000 mg/kg (mouse)
		8,471 mg/kg (rat)

**Specific symptoms in biological assay:**
**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

(Contd. on page 7)

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Version number 4 (replaces version 3)

Revision: 30.10.2024

Trade name: AdBlue®

(Contd. of page 6)

**Serious eye damage/irritation** Based on available data, the classification criteria are not met.**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.**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.**Additional toxicological information:****Repeated dose toxicity** Based on available data, the classification criteria are not met.**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Not classified as carcinogenic, mutagenic, toxic for reproduction.

**11.2 Information on other hazards****Endocrine disrupting properties**

The product does not contain substances included in the list established in accordance with Article 59(1) of REACH for endocrine disrupting properties or has not been identified as having endocrine disrupting properties according to the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or higher than 0.1%.

None of the ingredients is listed.

**SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:**

(CAS: 57-13-6) Urea

Toxicity to fish

LC50 (96h), tilapia mossambica: 6800 mg/L (OECD Guideline 203)

Toxicity to daphnia

EC50 (24h), daphnia magna: 10000 mg/L

Toxicity to algae

EC10/LC10 or NOEC (192h) for freshwater algae: 47 mg/L

**12.2 Persistence and degradability** No further relevant information available.**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**12.5 Results of PBT and vPvB assessment**

The product does not contain ingredients that are considered to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative at levels of 0.1% or higher according to REACH, Annex XIII.

**PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Endocrine disrupting properties**

The product does not contain substances included in the list established in accordance with Article 59(1) of REACH for endocrine disrupting properties or has not been identified as having endocrine disrupting properties according to the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or higher than 0.1%.

(Contd. on page 8)



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Trade name: AdBlue®

(Contd. of page 7)

## 12.7 Other adverse effects

### Additional ecological information:

**General notes:** Not known to be hazardous to water.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Recommendation



Dispose according to National Regulations.

Contact manufacturer for recycling information.

#### Uncleaned packaging:

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## SECTION 14: Transport information

### 14.1 UN number or ID number

Unenforceable. Not classified as dangerous for transport.

ADR, ADN, IMDG, IATA

Void

### 14.2 UN proper shipping name

Void

ADR, ADN, IMDG, IATA

Void

### 14.3 Transport hazard class(es)

Void

ADR, ADN, IMDG, IATA

Class

Void

### 14.4 Packing group

Void

ADR, IMDG, IATA

Void

### 14.5 Environmental hazards:

Not applicable.

### 14.6 Special precautions for user

Not applicable.

### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

UN "Model Regulation":

Void

## SECTION 15: Regulatory information

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

REACH Regulation 1907/2006/EC

Regulation (EU) 2020/878

CLP Regulation 1272/2008/EC

(Contd. on page 9)



## Safety data sheet

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Version number 4 (replaces version 3)

Revision: 30.10.2024

Trade name: AdBlue®

(Contd. of page 8)

Directive 98/24/EC on the protection of health and safety of workers from the risks related to chemicals agents at work.

Council Directive 94/33/EC on the protection of young people at work, as ammended.

Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding, as ammended

### Directive 2012/18/EU

**Named dangerous substances - ANNEX I** The substance is not included in Annex I.

### **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

### **REGULATION (EU) 2019/1148**

#### **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

#### **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

#### **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

#### **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

**National regulations:** None

### **Other regulations, limitations and prohibitive regulations**

#### **Substances of very high concern (SVHC) according to REACH, Article 57**

It doesn't contain substances of very high concern (SVHC).

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

### **Training hints**

Suitable training on safety in handling, storing and converting the product should be given to the employees based on all the existing information.

**Classification according to Regulation (EC) No 1272/2008 -**

### **Department issuing SDS:**

**SUSTCHEM** SUSTCHEM S.A.  
REACH & Chemical Services Department  
A: 144, 3rd Septemvriou, GR 112 51 | Athens, Greece  
T: +30 210 8252510 | F: +30 210 8252575  
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(Contd. on page 10)



**Safety data sheet**  
**complying with Regulation 1907/2006/EC (REACH Regulation),**  
**EU 2020/878 and Regulation No 1272/2008/EC (CLP)**

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Revision: 30.10.2024

Trade name: AdBlue®

(Contd. of page 9)

**Version number of previous version: 3****Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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 Harmonised System of Classification and Labelling of Chemicals

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

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

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