

**Safety data sheet**  
**complying with Regulation 1907/2006/EC (REACH Regulation),**  
**EU 2015/830 and Regulation No 1272/2008/EC (CLP)**

Printing date 28.08.2017

Version number 1

Revision: 28.08.2017

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

**1.1 Product identifier**

**Trade name:** CYCLON ADBLUE

**Registration number:** Substances contained in the mixture have already (pre)-registered by the suppliers.

**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:**

Cleaning of waste gases

Reduction of NOx

**1.3 Details of the supplier of the safety data sheet**

**Manufacturer/Supplier:**

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**

**PBT:** Not applicable.

**vPvB:** Not applicable.

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**SECTION 3: Composition/information on ingredients****3.2 Chemical characterisation: Mixtures****Description:**

Mixture consisting of substances that either not classified or not required to be stated in the Safety Data Sheet according to Reg. (EU) 830/2015.

**Ingredients according Regulation (EU) 830/2015:** Void

**Ingredients**

CAS: 57-13-6	Urea	25-50%
EINECS: 200-315-5		

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

No special measures required.

Take affected persons out into the fresh air.

**After inhalation:** Seek medical treatment in case of complaints.

**After skin contact:**

Wash the skin immediately with soap and water.

Remove contaminated clothing.

In case of skin irritation, consult a physician.

**After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

If skin irritation continues, consult a doctor.

**After swallowing:**

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

Seek immediate medical advice.

**4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

**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:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray.

Use fire extinguishing methods suitable to surrounding conditions.

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

Ammonia

Carbon oxides may be generated.

**5.3 Advice for firefighters****Protective equipment:**

In case of a large fire or in confined or poorly ventilated spaces wear full fire resistant protective clothing and self contained breathing apparatus (SCBA) with a full space-piece operated in positive pressure mode.

**Additional information**

Keep adjacent containers cool by spraying with water.

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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**

Keep away from ignition sources.

Stop leakage, if safe to do so.

Caution for slippery surfaces.

**6.1.2 For emergency responders** Wear protective equipment. Keep unprotected persons away.**6.2 Environmental precautions:**

Control leakage with a non combustible absorbent material, such as earth or sand.

**6.3 Methods and material for containment and cleaning up:**

Barricade the leakage area.

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

**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.

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

Observe the general safety regulations when handling chemicals.

Do not eat, drink or smoke during the usage of the product.

**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:**

Protect from heat and direct sunlight.

Store in cool, dry conditions in well sealed receptacles.

**Requirements to be met by storerooms and receptacles:** Store in a cool location.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** None.**7.3 Specific end use(s)** No further relevant information available.**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** Use of local ventilation is advised.**Personal protective equipment****General protective and hygienic measures:**

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

**Respiratory protection:** Not necessary if room is well-ventilated.

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**Protection of hands:**

Protective gloves

**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. As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**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 protection:**

Goggles recommended during refilling

Not required under normal conditions of use.

**Body protection:**

Protective work clothing

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information****Appearance:**

**Form:** Liquid  
**Colour:** Clear  
 Colourless to pale yellow

**Odour:** Characteristic

**Odour threshold:** Not determined

**pH value (100 g/l) at 20°C:** 10

**Melting point/freezing point:** -11°C

**Initial boiling point and boiling range:** 103°C

**Flash point:** Not Flammable

**Flammability (solid, gas):** Not applicable

**Auto-ignition temperature:** Not determined

**Decomposition temperature:** Not determined

**Auto-ignition temperature:** Product is not selfigniting.

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**Explosive properties:** Product does not present an explosion hazard.

**Explosion limits:**

**Lower:** Not determined

**Upper:** Not determined

**Oxidising properties** Not considered as oxidising.

**Vapour pressure:** Not determined

**Density at 20°C:** 1,087-1,093g/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:** Not determined

**Viscosity:**

**Dynamic at 25°C:** 1,4mPas

**Kinematic:** Not determined

**9.2 Other information** No further relevant information available.

**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** Reacts with strong oxidising agents.

**10.4 Conditions to avoid** No further relevant information available.

**10.5 Incompatible materials** No further relevant information available.

**10.6 Hazardous decomposition products**

Carbon monoxide and carbon dioxide

Ammonia

Nitrogen oxides

**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

**Acute toxicity** Based on available data, the classification criteria are not met.

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

Oral	LD50	14500 mg/kg (rat)
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**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

**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.

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**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****Aquatic toxicity:****57-13-6 Urea**

EC50 &gt;10000 mg/l (daphnia magna)

LC50-96h &gt;6810 mg/l (Leuciscus Idus)

**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.**Additional ecological information:****General notes:** Not known to be hazardous to water.**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**

Dispose according to National Regulations.

Contact manufacturer for recycling information.

**Uncleaned packaging:****Recommendation:**

Disposal must be made according to official regulations.

Packaging may be reused or recycled after cleaning.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.**SECTION 14: Transport information****14.1 UN-Number** Void**ADR, ADN, IMDG, IATA** Void**14.2 UN proper shipping name** Void**ADR, ADN, IMDG, IATA** Void**14.3 Transport hazard class(es)** Void

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**ADR, ADN, IMDG, IATA**

<b>Class</b>	Void
<b>14.4 Packing group</b>	Void
<b>ADR, IMDG, IATA</b>	Void
<b>14.5 Environmental hazards:</b>	Not applicable.
<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>UN "Model Regulation":</b>	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) 2015/830

CLP Regulation 1272/2008/EC

Constituents of the mixture that fall within the scope of REACH Regulation 1907/2006/EC, have been (pre)-registered.

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

**Directive 2012/18/EU**

**Named dangerous substances - ANNEX I** Substance is not listed.

**National regulations:****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.

**Department issuing SDS:**

SUSTCHEM Engineering Ltd  
 REACH & Chemical Services Department  
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**Abbreviations and acronyms:**

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

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GB

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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)  
VOC: Volatile Organic Compounds (USA, EU)  
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

GB