



SAFETY DATA SHEET

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC **MOL-LUB Ltd.**

Trade name: **AdBlue® NO_x-reduction additive**

Version: 8 Latest revision: 26. 03. 2018 Date of issue: 26. 09. 2006 Page: 1/(12)

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

1.1 Product identifier:

AdBlue® NO_x-reduction additive

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

Relevant identified uses: additive, in motor vehicles with diesel engine

Uses advised against: no data

1.3 Details of the supplier of the safety data sheet:

MOL-LUB Lubricant Production Distribution and Service Ltd

H-2931 Almásfüzitő, Fő út 21., Hungary

Phone / Fax: +36 34 526 330 / +36 34 526 391

E-mail: kenoanyag@mol.hu

Request SDS of:

MOL-LUB Lubricant Production Distribution and Service Ltd

Customer Service Center

H-2931 Almásfüzitő, Fő út 21., Hungary

Phone / Fax: +36 80 201 296 / +36 34 348 010

Responsible for SDS:

MOL-LUB Ltd. Csaba Horváth, head of HSE, SD and QOP

Phone: +36 34 526 343; Mobile: +36 20 474 2644

e-mail: csahorvath@mol.hu

Technical information:

MOL-LUB Ltd. Product Development and Technical Service

H-1117 Budapest, Október huszonharmadika utca 18., Hungary

Phone/Fax: +36 80 201 296 or +36 1 464 0236 / +36 1 464 0304

1.4 Emergency telephone number

Emergency telephone (07-15²⁰ h): +36 34 526 210 (CET) on workdays

Health Toxicological Information Service (ETTSZ 1096 Budapest, Nagyvárad tér 2.)

Tel.: +36 80 201 199 (0-24 h, free number).

National Health Toxicological Information Service:



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SECTION 2 Hazards identification

2.1 Classification of the mixture or substance

Hazard Class and Category: Hazard statement:

- -

2.2 Label elements

Product identification:

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Hazardous substance(s): -

GHS Pictogram: -

Signal word: -

Hazard statement:

Not required.

Supplemental hazard information: -

Precautionary statements – General: -

Precautionary statements – Prevention:

P273 Avoid release to the environment.

Precautionary statements – Response: -

Precautionary statements – Storage: -

Precautionary statements – Disposal:

P501 Dispose of contents/container in accordance with national regulation.

Other liabilities for labelling:

Tactile warning of danger: not required

Transport classification: see section 14.

2.3 Other hazards

The product does not contain any PBT or vPvB substance according to annex XIII of regulation (EC) 1907/2006.



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SECTION 3 Composition/information on ingredients

3.2 Mixtures

Chemical description: Water solution of urea.

Component(s) / Hazardous component(s):

Name	EU number	CAS number	Hazard classes and cat.	Hazard statements	Conc. % (m/m)
Carbonic acid diamide	200-315-5	57-13-6	-	-	max. 32.5

The full text of each relevant H- phrase and Hazard classes and cat. see in Section 16.

SECTION 4 First aid measures

4.1 Description of first aid measures

General information: Never give anything by mouth to an unconscious person, or never induce vomiting.

Inhalation: Remove the affected person to fresh air. In the event of a complaint, call medical attention.

Skin contact: Wash skin with large amounts of water, use soap.

Eye contact: Flush eyes with plenty of water for 10-15 minutes. In the event of a complaint, get medical attention.

Ingestion: Do not induce vomiting, drink a small amount of clean water (room temperature, up to 2 dl for an adult).

Protection of first-aid person: No individual specifications.

4.2 Most important symptoms and effects, both acute and delayed

Prolonged and/or repeated contact may cause irritation.

Decomposition gases may cause irritation in the respiration tract.

Swallowing a large amount may cause digestion disorders.

4.3 Indication of any immediate medical attention and special treatment need

Not required.



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SECTION 5 Fire-fighting measures

Fire hazards:
Not combustible.

5.1 Extinguishing media

Suitable extinguishing media:
According to burning environment.

Unsuitable extinguishing media:
No data.

5.2 Special hazards arising from the mixture or substance

Hazardous combustion products:
Solid urea decomposes above the melting point (132.7 to 135 ° C): carbon monoxide, carbon dioxide, ammonia, nitrogen may be produced.

5.3 Advice for fire-fighters

Special protective equipment:
According to the existing fire-fighting regulations, respiratory protection.

Further information:
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Contaminated extinguishing water must be disposed of in accordance with official regulations.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: see Section 8.

6.2 Environmental precautions:

Prevent spills from entering into natural water, soil and drains by containing the liquid.
Notify relevant authority.

6.3 Methods and material for containment and cleaning up

On soil: Rinse the given area immediately with water. Dispose of according to local regulations. According to size and character of the contamination, use the spilled product for agricultural purposes or dispose of in a controlled way (waste-water treatment plant).

On water: Notify local authorities according to regulations.



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6.4 Reference to other sections

Personal precautions: see section 8.

Waste treatment methods: see section 13.

SECTION 7 Handling and storage

7.1 Precautions for safe handling

Keep general measures applied for normal operations with chemicals.

Adequate ventilation required.

Avoid contact with skin and eyes, inhalation of vapours.

Ensure washing facilities after working hours and before breaks. Take off contaminated clothing, wash with warm water and soap.

Handling temperature: no data

7.2 Conditions for safe storage, including any incompatibilities

Keep general measures applied for normal operations with chemicals.

The producer dispatches the urea solution with a temperature up to max. 30°C.

Transported in insulated tank trucks or palletized plastic tanks (IBC).

Materials suitable for these tanks are alloy steels, various plastics, as well as metal tanks with plastic coating.

Plain steels, copper, aluminium, alloys containig copper and aluminium, galvanized steels must not be used.

Requirements for materials to be used in direct contact with the product : in AUS 32 (CEFIC) Quality Assurance Guidance Document.

In order to avoid crystallization or hydrolysis in the urea solution, store under common conditions (optimally to 25°C).

Retail package in canisters with a volume of max. 15 l.

7.3 Specific end use(s)

Additive, in motor vehicles with diesel engine.

SECTION 8 Exposure controls / personal protection

Engineering control measures:

Adequate ventilation.



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8.1 Control parameters:

EU (2000/39/EC):

Ammonia: 14 mg/m³ (eight-hour's time-weighted average)
 36 mg/m³ (short-term)

8.2 Exposure controls

Personal protection:

Respiratory protection: Under normal use conditions, respirator is not usually required. Use effective respirator, mask with ammonia-proof liter.

Hand protection: Protective gloves (chemical resistant) (EN 374).
Note: Manufacturer's directions for use and the conditions of application should be observed.

Eye protection: Where splashing is possible, wear safety glasses (EN 166).

Skin protection: Protective clothing.

Other special: No data.

Environmental exposure controls:

Do not discharge into drains/surface waters/groundwater.

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:

Physical state:	liquid
Colour:	colourless, clear liquid
Odour:	slight ammonia scent

Change in physical state:

Crystallization point:	typ. -11.5°C
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Others:

Flash point :	not applicable
Ignition point :	not available
Thermal conductivity (at 25°C):	cca 0.57 W/m.K
Explosive properties:	not explosive
Oxidizing properties:	not available
Specific heat (at 25°C):	cca 3.4 kJ/kg.K
Density :	1087 – 1093 kg/m ³
Solubility in water:	soluble



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n-Octanol/water partition coefficient:	not available
Viscosity (at 25°C):	cca 1.4 mPa.s
Surface tension:	min. 65 mN/m
Molecular weight:	60.06 kg/kmol
Refractive index at 20°C:	1.3814 – 1.3843
pH value of a 10 %-water solution:	max. 10

9.2 Other information
no data available

SECTION 10 Stability and reactivity

10.1 Reactivity:	Dangerous reactivity not known.
10.2 Chemical stability:	No decomposition if stored and handled properly.
10.3 Possibility of hazardous reactions:	Not known.
10.4 Conditions to avoid:	Elevated temperatures.
10.5 Incompatible materials:	No data.
10.6 Hazardous decomposition products:	No dangerous decomposition products are formed under normal conditions. Decomposes at a temperature above its melting point (132.7 to 135 ° C), carbon monoxide, carbon dioxide, ammonia and nitrogen oxides. Hazardous combustion products: See Section 5.

SECTION 11 Toxicological information

11.1 Information on toxicological effects	
Acute toxicity:	
Oral: LD ₅₀ (rat):	> 2000 mg/kg
Dermal: no data	
Acute toxicity: irritation	
Skin contact:	not irritant
Eye contact:	not irritant
Respiratory or skin sensitisation:	not sensitising



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Other information, specific effects:

Germ cell mutagenicity:	not known, resp. not mutagen (based on components)
Carcinogenicity:	not known, resp. not carcinogen (based on components)
Reproductive toxicity:	not known, resp. no reproduction-damaging effect (based on components)
STOT-single exposure:	not classified
STOT-repeated exposure:	not classified
Aspiration hazard:	not classified

SECTION 12 Ecological information

12.1 Toxicity	No data available for the preparation.
Aquatic organisms:	
Soil organisms:	
Plants:	
12.2 Persistence and degradability	
Biodegradability:	Substantial biodegradation in water and soil.
12.3 Bioaccumulative potential	Accumulation in organisms is not to be expected.
12.4 Mobility	
Mobility in soil:	Substantial biodegradation in soil.
Mobility in water:	Soluble in water.
12.5 Results of PBT and vPvB assessment	Not required.
12.6 Other adverse effects	
Biological oxygen demand:	No data.
Chemical oxygen demand:	No data.
Heavy metal content:	None.
PCT, PCB and other chlorinated hydrocarbons:	None.
Environmental effects:	Contamination of water by a large amount may occur adverse affects on the aquatic environment because of high consumption of oxigen.
Water hazard class (German):	



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Legend:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration Factor
BOD	Biological Oxygen Demand
Bw	Body Weight
C&L	Classification and Labeling
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging (1272/2008/EC)
CMR	Carcinogenic, Mutagenic or toxic to Reproduction
COD	Chemical Oxygen Demand
CSA	Chemical Safety Assessment
CSR	Chemical Safety Report
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
ECHA	European Chemicals Agency
Ec _x	Effective Concentration x%
ErC ₅₀	EC ₅₀ in terms of reduction of growth rate
Ed _x	Effective Dose x%
EC	European Community
EC number	European Community number
ELINCS	European List of Notified Chemical Substances
ES	Exposure Scenario
ESIS	European Chemical Substances Information System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC _x	Lethal Concentration x%
LD _x	Lethal Dose x%) Halálos dózis x%
LOAEC	Lowest Observed Adverse Effect Concentration
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest Observed Effect Level
NOEC	No observed effect concentration
NOEL	No observed effect level
NLP	No-Longer Polymer
NOAEL	No Observed Adverse Effect Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	parts/million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals



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RID	Regulations concerning the International carriage of Dangerous Goods by Rail
SVHC	Substance of Very High Concern
UVCB	substance of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bio-accumulative

Revision Indicators:

Section	Subject of change	Date	Version
15	Regulatory information: S-phrases	23.04.2007	1
6 7	Accidental release measures: Clean up procedures Storage and transport	25.05.2007	2
1-16	Regulatory information, other corrections	20.07.2007	3
1-16	Regulatory information, other corrections	20.05.2010	4
13	Hinweise zur Entsorgung	04.08.2010	5
1-16	Revision modification according to 453/2010/EC and 1272/2008/EC	31.07.2012	6
5 14 1-16	Fire hazards Transport information Other corrections	10.03.2015	7
1-16	Other corrections, Revision modification according to 2015/830 /EU	26.03.2018	8