



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: 11 Latest revision: 11. 11. 2022 Date of issue: 26. 09. 2006 Page: 1/(12)

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

1.1 Product identifier:

AdBlue® NO_x-reduction additive

1.2 Relevant identified uses of the substance or mixture 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 Trade and Service Limited Liability Company

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 Trade and Service Limited Liability Company

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.

Phone: +36 80 201 296

e-mail: EBKHelpdesk@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 (on workdays: 07-15²⁰ h (CET)): +36 34 526 210

Health Toxicological Information Service (ETTSZ 1097 Budapest, Albert Flórián st. 2-6.)

Tel.: +36 80 201 199 (0-24 h, free number, can only be called from Hungary).

+36 1 476 6464 (0-24 h, can be called for a normal fee - also from abroad)

National Health Toxicological Information Service:



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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	EC number	CAS number	Hazard classes and cat.	Hazard statements	Conc. % (m/m)
Carbonic acid diamide	200-315-5	57-13-6	-	-	31.8-33.2

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 needed

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 substance or mixture

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 firefighting 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.

6.4 Reference to other sections

Personal precautions: see section 8.

Waste treatment methods: see section 13.



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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.
Wash hands before breaks and at end of work.
Take off contaminated clothing and wash it before reuse.
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 containing 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**

8.1 Control parameters:

EU (2000/39/EC):

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

8.2 Exposure controls

Engineering control measures:

Adequate ventilation.



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Personal protection:

- (a) Eye/face protection Where splashing is possible, wear safety glasses (EN 166).
- (b) Skin protection
- (i) Hand protection Protective gloves (chemical resistant) (EN 374).
 Note: Manufacturer's directions for use and the conditions of application should be observed.
- (ii) Other Protective clothing.
- (c) Respiratory protection Under normal use conditions, respirator is not usually required. If the concentration of ammonia may exceed the exposure limit, a suitable respirator is required
- (d) Thermal hazards 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

- a) Physical state: liquid
- b) Colour: colourless, clear liquid
- c) Odour: slight ammonia scent
- d) Melting point/freezing point (Dropping point) (ISO 3016): not available
- e) Boiling point or initial boiling point and boiling range (ASTM D 1120): not available
- f) Flammability: combustible
- g) Lower and upper explosion limit: not explosive
- h) Flash point (COC) (EN ISO 2592): not available
- i) Auto-ignition temperature: not available
- j) Decomposition temperature: not available
- k) pH value of a 10 %-water solution: max. 9.5
- l) Kinematic viscosity (EN ISO 3104)
 at 25°C: cca 1.4 mPa.s
- m) Solubility
- Solubility in water: soluble
- Solubility in other solvents: not available



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| n) Partition coefficient n-octanol/water (log value): | not available |
| o) Vapour pressure at 20°C: | not available |
| p) Density and/or relative density at 15°C (EN ISO 12185): | 1087 - 1093 kg/m ³ |
| q) Relative vapour density: | not available |
| r) Particle characteristics: | not available |

9.2 Other information

Crystallization point:	typ. -11.5°C
Thermal conductivity (at 25°C):	cca 0.57 W/m.K
Specific heat (at 25°C):	cca 3.4 kJ/kg.K
Surface tension:	min. 65 mN/m
Molecular weight:	60.06 kg/kmol
Refractive index at 20°C:	1.3814 – 1.3843

SECTION 10 Stability and reactivity

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|--|--|
| 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. It decomposes at temperatures above the melting point of urea (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 hazard classes as defined in Regulation (EC) No 1272/2008

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

Oral:	LD ₅₀ (rat):	> 2000 mg/kg
Dermal:	no data	



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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.
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.

11.2 Information on other hazards

The mixture does not contain any substance with endocrine disrupting properties, at a concentration of 0.1% or more.

SECTION 12 Ecological information

12.1 Toxicity	No data available for the preparation.
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 in soil Mobility in water:	Absorbs in soil. Soluble in water.
12.5 Results of PBT and vPvB assessment	Does not contain PBT and vPvB substances, at a concentration of 0.1% or more.
12.6 Endocrine disrupting properties	The mixture does not contain any substance with endocrine disrupting properties, at a concentration of 0.1% or more.
12.7 Other adverse effects Biological oxygen demand: Chemical oxygen demand: Heavy metal content: PCT, PCB and other chlorinated hydrocarbons: Environmental effects:	No data. No data. None. None. Contamination of water by a large amount may occur adverse affects on the aquatic environment because of high consumption of oxygen.
Water hazard class (German):	WGK 1 (Classification by AwSV)



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SECTION 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety data sheet has been prepared according to Regulation (EC) No 1907/2006 (mod.: 2020/878/EU) and to Regulation (EC) 1272/2008.
Seveso category: not classified.

15.2 Chemical safety assessment.
not available

SECTION 16 Other information

The information given in this data sheet is based on our best knowledge at the time of publication. The information is related only to this product and is intended to assist its safe transport, handling and use. The given physical and chemical parameters describe the product only for the purpose of safety requirements and therefore should not be construed as guaranteeing any specific property of the product or as being part of a product specification or any contract. The manufacturer or supplier shall not take responsibility for any damages from the use other than recommended or other misuse of the product. It is the responsibility of the user to keep regulatory precautions and observe recommendations for safe use of the product.

Classification for mixtures and used evaluation method according to regulation 1272/2008/EC (CLP)
Not classified.

The full text of each relevant Hazard classes and cat., and H- phrase in Section 3.:

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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



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C&L	Classification and Labelling
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%
ErC50	EC50 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
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%
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
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



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Revision Indicators:

Section	Subject of change	Date	Version
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	Disposal considerations	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
3	Composition/information on ingredients	28. 11. 2019	9
9	Physical and chemical properties	07. 02. 2020	10
1-16	Revision modification according to 2020/878/EU	11. 11. 2022	11