

[Done in accordance with the regulation WE 1907/2006 (REACH) with later alterations]

Section 1: Product name and company Identification

1.1. Product identifier

Trade name: **WAB Blue** Product code: 510719

Chemical name: urea (carbonyl diamide), aqueous solution

CAS number: 57-13-6

Registration number (REACH number): 01-2119463277-33-XXXX

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

identified uses of the substance: product for the selective reduction of nitrogen oxides in diesel

engines equipped with an SCR (Selective Catalytic Reduction) system.

uses advised against: undefined

1.3. Details of the supplier of the safety data sheet

Manufacturer: Zakład Chemiczny WaBa <u>www.waba.com.pl</u> Adress: Dąbrowa n. Czarną 80A, 26-337 Aleksandrów, Poland Telephone/fax: +48 44 756 90 07 / +48 44 756 90 07 wew. 24

E-mail of the person responsible for the product: biuro@waba.com.pl
E-mail of the person responsible for the safety data sheet: biuro@theta-doradztwo.pl

1.4. Emergency telephone number

112 (general emergency number)

998 (fire brigade)

999 (medical emergency)

Section 2: Hazards identification

2.1 Classification of the substance or mixture

This product is not hazardous to human health and life or to the aquatic environment.

2.2 Label elements

Hazard pictograms and signal word:

none

Hazard statements

none

Precautionary statements:

none

2.3 Other hazards

The substance does not meet criteria for classification as PBT or vPBT in accordance with annex XIII of the REACH regulation.

Section 3: Composition and information on ingredients

3.1 Substances

Urea 30-35%

Index numer: - CAS number: 57-13-6 WE number: 200-315-5

Section 4: First aid measures

4.1 Description of first aid measures

<u>In the contact with the skin</u>: Rinse the exposed parts of the skin thoroughly with water. Take off contaminated clothing. Consult a doctor if disturbing symptoms occur.

<u>In contact with the eyes:</u> Remove contact lenses. Rinse contaminated eyes thoroughly with water for at least 15 minutes. Avoid strong water stream – risk of cornea damage. Consult an ophthalmologist if disturbing symptoms occur.

<u>In case of ingestion:</u> Do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. If necessary, consult a doctor, show the packaging or label.

After inhalation: Take the injured person to fresh air, keep warm and at rest. Consult a doctor if disturbing symptoms occur.



4.2 Most important symptoms and effects, both acute and delayed

Negative effects of exposure are not expected.

4.3 Indication of any immediate medical attention and special treatment needed

The decision on how to proceed with the rescue is made by the doctor after a thorough assessment of the victim's condition.

Section 5: Firefighting measures

5.1. Extinguishing media

<u>Suitable extinguishing agents</u>: water spray, dry chemical, foam, CO2. Adapt the extinguishing agent to the material gathered in the immediate vicinity.

Unsuitable extinguishing agents: water.

5.2. Special hazards arising from the substance or mixture

During combustion, toxic and corrosive exhaust fumes containing carbon oxides can be released. Avoid inhalation of combustion products, they may be hazardous to health.

5.3. Advice for firefighters

General protection measures typical in case of fire. Do not stay in fire-endangered area without appropriate chemical-resistant clothing and self-contained breathing apparatus. Remove containers exposed to high temperatures from the hazard area.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Limit the access of bystanders to the endangered area until appropriate cleaning operations are completed. Make sure that the failure and its effects are removed only by rained personnel. In case of large spills, isolate the endangered area, Avoid direct contact with the product. Provide adequate ventilation.

6.2. Environmental precautions

In the event of release of larger amount of the product, steps should be taken to prevent it from spreading into the environment. Notify the appropriate emergency services.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-absorbing materials (e.g. sand, earth, acid, binders, silica, sawdust, etc.). Clean the contaminated area. Treat the collected material as waste.

6.4. Reference to other sections

Product waste management – section 13. Personal protection measures – see section 8 of the sheet.

Section 7: Handling and storage

7.1. Precautions for safe handling

Observe the general rules of safety and hygiene. Do no eat, drink or smoke while working. Wear personal protective equipment. Avoid eyes and skin contamination. Do not inhale vapors. Provide adequate ventilation. Wash hands before breaks and at the end of work. Keep unused containers tightly closed.

7.2. Conditions for safe storage, including any incompatibilities

Store only in tightly closed, original and properly labeled containers in a cool, dry and well-ventilated place. Protect against heat sources and direct sunlight. Protect against moisture and water – a product with hygroscopic properties.

7.3. Specific end use(s)

Product for selective reduction of nitrogen oxides in diesel engines equipped with SCR (Selective Catylytic Reduction) system.



Section 8: Exposure control and personal protection

8.1. Control parameters

The product does not have specific occupational exposure limits (legal basis: Journal of Laws of 2014, item 817, as amended).

DNEL values

Route of exposure	Exposure pattern	DNEL -employees
skin	Short-term systemic effect	580 mg/kg body weight /day
	Long-term systemic effect	580 mg/kg body weight /day
inhalation	Short-term systemic effect	292 mg/m3
	Long-term systemic effect	292 mg/m3

Route of exposure	Exposure pattern	DNEL - consumers
Skin	Short-term systemic effect	580 mg/kg body weight /day
	Long-term systemic effect	580 mg/kg body weight /day
Inhalation	Short-term systemic effect	125 mg/m3
	Long-term systemic effect	125 mg/m3
orally	Short-term systemic effect	42 mg/kg body weight /day
	Long-term systemic effect	42 mg/kg body weight /day

PNEC values

PNEC	value
Sweet water	0,047 mg/l

8.2. Exposure controls

Observe the general rules of safety and hygiene. Do not eat, drink or smoke while working. Wash hands thoroughly before breaks and after work. Avoid eyes and skin contamination.

Hand and body protection

Use acid-resistant protective gloves. Use acid-resistant protective clothing and safety shoes. The material on the glove should be selected individually at the workplace. The glove material has to be impermeable and resistant to the product. The choice of material should be made taking into account the breakthrough times, permeation rate and degradation. Furthermore, the selection of the appropriate gloves does not only depend on the material, but also on other quality characteristics and varies from manufacturer to manufacturer. The exact break through time should be obtained from the manufacturer of the gloves and must be observed.

Eye protection

Use goggles type safety glasses where there is a possibility of eye contamination.

Respiratory protection

No required.

The personal protective equipment used must meet the requirements of the Ordinance of the Ministry of Economy of December 21, 2005 (Journal of Laws No. 259, item 2173) and Directive 89/686 / EC (with subsequent amendments). The employer is obliged to provide protection measures appropriate to the activities performed and meeting all quality requirements, including their maintenance and cleaning

Environmental exposure controls

Avoid release to the environment, do not empty into drains. Possible emissions from ventilation systems and process equipment should be checked in order to determine their compliance with the requirements of environmental protection law.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid Color: colorless

Odor: characteristic odor Threshold: not determined



pH value: not determined

melting point/ freezing point: -11.5 C

initial boiling point: not determined

flash point: not applicable evaporation rate: not determined

flammability (solid, gas): not applicable upper/lower explosion limit: not applicable

vapor pressure: not determined

vapor density (25 C): 0,00002 hPa

density (20 C): 1,087 – 1,093 kg/m3

solubility: soluble in water and most organic solvents

partition coefficient: n-octanol/water: -1,73 auto-ignition temperature: not self-igniting decomposition temperature: does not show

explosive properties: does not show oxidizing properties: does not show dynamic viscosity: not determined

9.2. Other information

No additional information.

Section 10: Stability and reactivity

10.1. Reactivity

The product is not very reactive. It does not undergo hazardous polymerization. See also section 10.3 - 10.5.

10.2. Chemical stability

The product is stable when properly used and stored.

10.3. Possibility of hazardous reactions

May decompose explosively with ammonium nitrate release. Explosive nitrogen trioxide may be formed by reaction with hypochlorites.

10.4. Conditions to avoid

Moisture, excessive heating above 133 C.

10.5 Incompatible materials

Strong acids, bases, strong oxidizing agents, nitrates, sodium and calcium hypochlorite.

10.6. Hazardous decomposition products

Acrylic aldehyde may form at elevated temperatures

Section 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

LD50 (rabbit, male) 14 300 mg/kg body weight

LD50 (mouse, male) 11 500 mg/kg body weight

LDLo (cattle, male/female) 600 mg/kg body weight

LDLo (flock, male) > 16 000 mg/kg body weight

Based on the available data, the classification criteria are not met

skin corrosion / irritation

Based on the available data, the classification criteria are not met

serious eye damage / irritation

Based on the available data, the classification criteria are not met

respiratory or skin sensitization

Based on the available data, the classification criteria are not met mutagenic effect on reproductive cells

Based on the available data, the classification criteria are not met carcinogenic effect

Based on the available data, the classification criteria are not met reproductive toxicity

Based on the available data, the classification criteria are not met specific target organ toxicity - single exposure

Based on the available data, the classification criteria are not met

specific target organ toxicity - repeated exposure

Based on the available data, the classification criteria are not met



aspiration hazard

Based on the available data, the classification criteria are not met

Section 12: Ecological information

12.1. Toxicity

LD50 (fish) 6810-28 000 mg/l EC50 (daphnia) 10 000 mg/l/48h

LC10/EC10 or NOEC (freshwater algae) 47 mg/l

12.2. Persistence and degradability

It undergoes biological degradation

12.3. Bio accumulative potential

Does not show the potential for bioaccumulation. Log Po / w = -1.7312

12.4. Mobility in soil

Product mobile in soil and in the water environment. Koc: 0.037-0.064

12.5. Results of PBT and vPvB assessment

Does not meet the criteria for classification.

12.6. Other adverse effects

The substance is not classified as hazardous to the ozone layer. However, due to the change in the pH of the water, it can pose a threat to the aquatic environment.

Section 13:Disposal considerations

13.1. Waste treatment methods

<u>Recommendations for the substance:</u> dispose of in accordance with applicable regulations. Do not dispose of with municipal waste. Store remains in original containers. The waste code should be assigned at the place of its production

<u>Disposal methods for used packaging</u>: recovery / recycling / disposal of packaging waste should be carried out in accordance with applicable regulations. Reusable packaging may be intended for reuse after cleaning. Single-use packaging should be delivered to an authorized waste recipient.

EU legal acts: directives of the European Parliament and of the Council: 2008/98 / EC. National legal acts: Journal of Laws No. 2013 item 21 as amended d., Journal Of Laws of 2013, item 888 with later amendments.

Section 14: Transportation information

14.1 UN number

Not applicable. The product is not classified as hazardous.

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable



Section 15: Regulatory Information

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

Act of February 25, 2011 on chemical substances and their mixtures (Journal of Laws No. 63, item 322, as amended). Regulation of the Minister of Labor and Social Policy of 6 June 2014. on the highest allowable concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2014, item 817

European ADR agreement on the international carriage of dangerous goods by road

Waste Act of December 14, 2012 (Journal of Laws of 2013, item 21, as amended).

Act of June 13, 2013 on the management of packaging and packaging waste (Journal of Laws of 2013, item 888). Regulation of the Minister of the Environment of 9 December 2014 on the waste catalog (Journal of Laws of 2014, item 1923).

Ordinance of the Minister of Economy of December 21, 2005 on the essential requirements for personal protective equipment (Journal of Laws No. 259, item 2173).

Regulation of the Minister of Health of February 2, 2011 on tests and measurements of factors harmful to health in the work environment (Journal of Laws No. 33, item 166).

2015/830 / EC Commission Regulation of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

1907/2006 / EC Regulation on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45 / EC and repealing Council Regulation (EEC) No. 793/93 and No. 1488 / 94, as well as Council Directive 76/769 / EEC and Commission Directive 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC as amended. D

1272/2008 / EC Regulation of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC, and amending Regulation (EC) No. 1907/2006 with later d.

2008/98 / EC Directive of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain directives.

94/62 / EC Directive of the European Parliament and of the Council of 20 December 1994 on packaging and packaging waste

15.2. Chemical safety assessment

A safety assessment has been carried out.

Section 16: Other Information

Clarification of abbreviations and acronyms

PNEC Predicted No Effect Concentration in the environment

DNEL Derived No effect level

PBT Persistent, bioaccumulative and toxic substances

 $\ensuremath{\text{vPvB}}$ Substances very persistent and very bioaccumulative

Training

Before commencing work with the product, the user should learn the Health and Safety regulations regarding handling chemicals, and in particular, undergo appropriate workplace training.

References to key literature and data sources

The card was developed on the basis of the safety data sheet provided by the manufacturer, literature data, internet databases and the possessed knowledge and experience, taking into account the current legal regulations.

Additional information Changes: section: 1-16

Person issuing the sheet: mgr Anna Michalska-Maciejczyk (based on the manufacturer's data)

Card issued by: "THETA" Doradztwo Techniczne

This charter annuls and replaces all its previous versions.

The above information is based on the currently available data characterizing the product as well as the experience and knowledge of the manufacturer in this field. They do not constitute a quality description of the product or a promise of specific properties. They should be treated as an aid for safe handling in transport, storage and use of the product. This does not absolve the user from responsibility for the improper use of the above information and from compliance with all legal standards in this area.



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