



SAFETY DATA SHEET

UREA

according to Regulation (EC) No. 1907/2006 (REACH)
and Commission Regulation (EU) No. 2015/830

Issue Date: 21/09/2009
Revision Date: 16/11/2019
version: C

Section 1: Identification of the substance/mixture and the company/enterprise

1.1 Product identifier

Business name:

UREA

Distributor:

Ekokoza s.r.o

Address:

Fryčovice 297, 73945, Fryčovice

ID:07508247,eshop@ekokoza.cz

1.2 Relevant determinations of use of the substance or mixture and advised against uses

Intended use: Chemical raw material, gas treatment

Not recommended uses:

Fertilizer, Feed additive

1.3 Detailed data on the supplier of the safety data sheet

Business name:

Residence:

Ekokoza s.r.o

Identification number:

Fryčovice 297, 73945, Fryčovice

Phone:

ID:07508247,eshop@ekokoza.cz

www:

BL processor:

1.4 Telephone number for emergency situations

Toxicology Information Centre, Na Bojišti 1, Prague 2, 128 08 Tel.: +420 224 91
92 93, +420 224 91 54 02 - NONSTOP

Section 2: Hazard identification

2.1 Classification of substance / mixture

2.1.1 Classification according to regulation (EC) no. 1272/2008 (CLP):

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008 (CLP).

2.2 Marking elements

Labeling according to Regulation (EC) No. 1272/2008 (CLP):

Symbol:

Not classified.

Signal word:

Not classified.

Contains:

Urea

H-phrases:

Not classified.

P-instructions:

Not classified.

Additional information:

They are not.

2.3 Another danger

see section 12.5



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Section 3: Composition / information on ingredients

3.1 Substances

3.2 Mixtures

Folder name	Content (%)	TIME EINECS Index N° Reg. number	Classification according to regulation (EC) no. 1272/2008 (CLP)
Urea	100	57-13-6 200-315-5 - 01-2119463277-33-XXXX	Not classified

Full text of H-phrases in point 16.

Section 4: First aid instructions

4.1 Description of first aid

General instructions:

In case of accident or if you feel unwell, seek medical attention immediately (show this SDS or the label if possible).

When inhaling:

Move the victim to fresh air, keep him calm, prevent hypothermia. In case of problems, seek medical help.

In case of skin contact:

Remove the stained clothing, wash the affected area thoroughly with soap and water, treat with a suitable cream.

In case of eye contact:

Rinse immediately with plenty of water. If contact lenses are worn, carefully remove them and start rinsing the affected eye wide open with clean water from the inner corner to the outer corner and also under the lids for at least 15 minutes. Seek medical attention if problems persist.

If ingested:

Rinse mouth with water, never induce vomiting. Seek medical attention immediately Help.

Protecting first responders: First and foremost, keep your own safety and protection in mind.

4.2 Most important symptoms and effects, both acute and delayed

If first aid procedures are effectively applied, no acute or delayed symptoms or effects are expected.

4.3 Indication of immediate medical attention and special treatment

It is generally recommended for ingestion.

Section 5: Fire fighting measures

5.1 Fire extinguishers

Suitable extinguishing agents:

Foam, dry powder, carbon dioxide, water spray, sand

Unsuitable extinguishing agents:

None.

5.2 Special hazards arising from the mixture

Avoid inhalation of combustion products. During thermal decomposition, toxic fumes may occur: ammonia. In case of dispersion, it can create an explosive dust-air mixture.

5.3 Instructions for firefighters

Do not enter the fire area without appropriate protective clothing and self-contained breathing apparatus.



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Section 6: Accidental release measures

6.1 Personal protection measures, protective equipment and emergency procedures

Use PPE - suitable protective clothing, gloves and eye and face protection.
Eliminate all possible sources of ignition and ignition. Ensure ventilation of the affected area. Remove all persons not involved in rescue operations to a safe distance.

6.2 Environmental protection measures

Prevent leakage into the environment, prevent entry into surface water and sewage.
In the event of a leak into a sewer or watercourse, immediately inform its manager, or competent authorities.

6.3 Methods and material for containment and cleaning up

In the event of a leak, locate and, if possible, pump out the product or mechanically remove it, remove it from the surface of the water. Allow residues or smaller amounts to soak into a suitable sorbent (Vapex, diatomaceous earth, sand) and place in suitable marked containers and hand over for disposal in accordance with applicable regulations.

6.4 Reference to Other Sections

see dept. 7, 8 and 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Avoid moisture build-up. Follow the principles of good hygiene and safety.

7.2 Conditions for safe storage of mixtures, including incompatible substances and mixtures

Store in a clean, dry, well-ventilated place. Store in tightly closed containers.
Store away from: direct sunlight. Store away from: food and beverages, feed, strong oxidizing agents, acids and acid-forming substances.

7.3 Specific end / specific end uses

see dept. 1.2

Section 8: Exposure controls / personal protective equipment

8.1 Control parameters

Exposure limits:

Government Regulation No. 361/2007 Coll., which establishes the conditions for health protection at work, as amended, establishes the following maximum permissible concentrations (NPK-P) and permissible exposure limits (PEL) of chemical substances in the workplace a

Substance	TIME	PEL (mg/m ³)	NPK-P (mg/m ³)	Note
No data available				



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DAYS:

Urea (CAS: 57-13-6)

Workers			Consumers		
Exposure type	Way exposure	Value	Exposure type	Way exposure	Value
Systemic acute	Inhalation	292 mg/m ³	Systemic acute	Inhalation	125 mg/m ³
Systemic acute	Dermal	580 mg/kg bw/d	Systemic acute	Dermal	580 mg/kg bw/d
			Systemic acute	Oral	42 mg/kg bw/d

PNEC:

Urea (CAS: 57-13-6)

Inland	Freshwater environment	PNEC water, malt.	0.47 mg/l
	Freshwater environment - Occasional release	PNEC water, malt.	No data available
	Freshwater sediment	PNEC sed., malt.	No data available
	Soil	PNEC land	No data available
	Wastewater treatment plant	PNEC CHOV	No data available
Sea	Seawater	PNEC water, sea	No data available
	Marine sediment	PNEC sed., sea	No data available

The maximum allowable concentrations of respirable and respirable must be observed at the workplace dust.

DNEL and PNEC values for the other components of the mixture have not been determined.

8.2 Limiting Exposure

Technical measures:

Engineering measures and appropriate work procedures take precedence over personal protective equipment.
Observe normal hygiene principles. Do not eat, drink or smoke while working. Wash your hands with warm water and soap before a work break and after work.

Individual protective measures

Respiratory tract:

When creating an aerosol, use an escape mask with filter A, AX (brown) or another suitable type against organic gases and vapors of organic substances according to \ddot{Y} SN EN 14387.

Hands:

Protective work gloves resistant to petroleum substances, preferably made of nitrile or neoprene rubber, according to \ddot{Y} SN EN 374. Follow the exact instructions from the manufacturer, including the period of use. Replace damaged gloves immediately.

Eyes:

Safety glasses with side labels or a face shield, according to \ddot{Y} SN EN 166.

Skin:

Work clothes (\ddot{Y} SN EN 340) and footwear (\ddot{Y} SN EN 347).

Thermal hazards:

No data available.

Limiting environmental exposure:

Prevent unnecessary leaks into the environment.



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Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

State:	Firmly
Color:	White
Smell: Ammonia	
Odor threshold: pH: 9.2 - 9.5	No data available.
Melting / freezing point (°C): ~ 134	No data available.
Initial boiling point / boiling point range (°C):	
Flash point (°C):	No data available.
Evaporation rate:	No data available.
Flammability:	Non-flammable
Limits (upper / lower) of flammability / explosiveness:	In case of dispersion, it can create an explosive dust-air mixture. Dust Explosion Class: Wed 1 Minimum ignition energy (MZE) 10 - 100 kJ
Vapor pressure (hPa, 20 °C):	0.09
Vapor pressure (50 °C):	No data available.
Vapor density:	No data available.
Relative density (g/l):	1,335
Solubility in water (20 °C):	624 g/l
Partition coefficient n-octanol/water:	-1.73 (20°C)
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity (20 °C):	No data available.
Refractive index (20 °C):	No data available.
Oxidizing properties:	It has no oxidizing properties.
Explosive properties:	No data available.

9.2 Additional Information

VOC content (%):	No data available.
Dry matter content: Additional information:	No data available. Decomposition occurs from temperature: 132 °C Calorific value: 8.7 MJ/kg Will not ignite at temperatures up to 600 °C (settled dust), 800 °C (stirred dust) Soluble in: Acetone, ethanol, glycerol. Insoluble in: Xylene, Chloroform, Ether.

Section 10: Stability and reactivity

10.1	Reactivity	No data available.
10.2	Chemical stability	Stable under normal conditions (20 °C; 101.3 kPa). Decomposition occurs from temperature: 132 °C
10.3	Possibility of hazardous reactions	By reacting with water and acids it releases: Ammonia. Danger of explosion in the presence of oxidizing agents. Hazardous reactions with: Chlorine (Cl ₂). Nitrites. Phosphorus oxide. Sodium hypochlorite - exothermic reaction.
10.4	Conditions to avoid	High temperatures, humidity, prolonged direct exposure to air.
10.5	Incompatible materials	Avoid contact with: oxidizing agents.
10.6	Hazardous decomposition products	Ammonia



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Section 11: Toxicological information

11.1 Information on toxicological effects

Urea (CAS: 57-13-6)

Acute toxicity:

Test type	Result	Exposure route	Test organism
	14300 mg/kg, LD50	orally	rat

Serious eye damage/irritation:

Test type	Result	Exposure route	Test organism
	non-irritating		rabbit

Skin corrosion/irritation:

Test type	Result	Exposure route	Test organism
	non-irritating		

Respiratory/Skin Sensitization:

Test type	Result	Exposure route	Test organism
	non-sensitizing		

STOT - single exposure:

Test type	Result	Exposure route	Test organism
	No data available.		

STOT - repeated exposure:

Test type	Result	Exposure route	Test organism
	No data available		

Carcinogenicity:

Test type	Result	Exposure route	Test organism
	No data available		

Germ cell mutagenicity:

Test type	Result	Exposure route	Test organism
	No data available		

Reproductive toxicity:

Test type	Result	Exposure route	Test organism
	No data available		



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Inhalation hazard:

Test type	Result	Exposure route	Test organism
	No data available.		

Section 12: Ecological information

12.1 Toxicity

Urea (CAS: 57-13-6)

Toxicity	Test organism	Result	Test type
Acute toxicity to fish:	<i>Leuciscus idus</i>	6810 mg/l, LC50, 96 h	
Acute toxicity to invertebrates:	<i>Daphnia magna</i>	> 10,000 mg/l, LC50, 24 h	
Acute toxicity to algae:	<i>Microcystis aeruginosa</i> , growth inhibition	47 mg/l, NOEC, 192 hours	

12.2 Persistence and Deployability

Biodegradable. Biodegradation in water = 96% (16 days, action on activated sludge)

12.3 Bioaccumulative potential

Bioaccumulation in organisms is unlikely due to the value of the partition coefficient

12.4 Mobility in soil

n-octanol/water (log Pow < 3).
Partition coefficient, soil organic carbon/water (Koc): 0.037 - 0.064
Adsorption in soil is likely.

12.5 Results of PBT and vPvB assessment

It does not meet the criteria for classification as a PBT or vPvB substance.

12.6 Other Adverse Effects

No environmental hazard is known or expected under normal use. Undesirable local ecotoxic effects can occur when a larger amount of the product is poured into the water by changing the pH value.

Section 13: Disposal considerations

13.1 Waste management methods

Cat. C.

No data available.

waste of the package contaminated with the mixture:

No data available.

Recommended procedure for disposal of mixture waste:

If possible, dispose of product residues by applying them as fertilizer. Collect waste in carefully marked closed containers. Hand over to an authorized organization for disposal.

Recommended procedure for disposal of waste packaging contaminated with substance / mixture:

Empty packaging must be disposed of by the waste generator in accordance with applicable waste legislation. Recommended method of disposal in an incinerator. Properly emptied and cleaned packaging can be recycled - reused for the same purposes.

Physical/chemical properties that may affect waste management:

No data available.



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Prevention of disposal of
wastes through sewers:

Protect against the weather. Prevent leakage of waste into water/soil/
sewage. In case of leakage, inform the relevant authorities.

Special precautions for waste
management:

Dispose in accordance with applicable legislation.

Section 14: Transport information

	Transport type	Land transport ADR/RID	Naval transport IMDG	Air Transport ICAO / IATA
14.1	UN number	Not applicable.		
14.2	Official (UN) shipping name	It is not a dangerous item in terms of transport.		
14.3	Transport hazard class	Not applicable.		
	Classification code:	Not applicable.		
	Identification number hazards:	Not applicable.		
	Safety signs:	Not applicable.		
14.4	Packaging group	Not applicable.		

14.5 Environmental hazard

Not applicable.

14.6 Special security measures for users

Limited and exempted quantities: Not applicable.

Transport category: Not applicable.

Tunnel restriction code: Not applicable.

14.7 Bulk transport according to Annex II of the MARPOL Convention and the IBC Regulation

Does not apply.

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations / specific legislation relating to the substance or mixture

all as amended and including implementing regulations

Act No. 350/2011 Coll., on chemical substances...

Act No. 258/2000 Coll., on the protection of public health...

Act No. 185/2001 Coll., on waste...

Act No. 201/2012 Coll., on air...

Act No. 254/2001 Coll., on waters...

Act No. 477/2001 Coll., on packaging...

Act No. 111/1994 Coll., on road transport

Act No. 224/2015 Coll., on the prevention of serious accidents...

NV No. 361/2007 Coll., Health protection conditions at work...

Decree No. 432/2003 Coll., which establishes the conditions for classifying works into categories...

Regulation (EC) No. 1272/2008 (CLP) on classification, labeling and packaging of substances and mixtures,...

Directive 67/548/EEC as amended Regulation (EC) No.

1907/2007 (REACH) on the registration, evaluation, authorization and restriction of chemical substances....

Regulation of the European Parliament and the Council (EC) No. 648/2004 on detergents

Regulation (EC) No. 528/2012 on biocides

15.2 Chemical safety assessment

A chemical safety assessment has been carried out.



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Section 16: Additional Information

Full text of all H-phrases listed in point 3:

H-phrases:

They are not.

Abbreviations:

PEL	Permissible exposure limit
NPK-P	The highest permissible concentration in the workplace
PBT	Persistent, bioaccumulative, toxic
vPvB	Highly persistent and highly bioaccumulative
VOCs	Volatile organic substances
TIME	Chemical Abstracts Service
EINECS	European Inventory of Existing Commercial Chemical Substances
OEL	Occupational Exposure Limit (exposure limit at the workplace - 8 hours/shift)
STEL	Short Term Exposure Limit (short-term exposure - corresponds to approx. 15 min.)
TODAY	Derived no-effect level
PNEC	Predicted no-effect concentration
LD50	Lethal dose for 50% of individuals (lethal dose for 50%)
LL50	Lethal load for 50% (lethal load for 50%)
EL50	Effect level for 50%
IL 50	Inhibition load for 50% (inhibition load for 50%)
LC50	Lethal concentration for 50% (lethal concentration for 50%)
EC50	Effect concentration for 50% (effect concentration for 50%)
IC50	Inhibition concentration for 50% (inhibition concentration for 50%)
CHRISTMAS	No observable effect level (no observable effect level)
NOAEL	No observable adverse effect level
NOAEC	No observable adverse effect concentration
LOL	Lowest observable effect level
LOAEL	Lowest observable adverse effect level
LOEC	Lowest observable effect concentration
LOAEC	Lowest observable adverse effect concentration
NO	Exposure without effect (no effect level)
ADR	European agreement on the international transport of dangerous goods by road
RID	Order for the International Rail Transport of Dangerous Goods
IMDG	International Regulation on the Carriage of Dangerous Goods by Sea
ICAO	Technical instructions for the safe air transport of dangerous goods
IATA	International Air Transport Association
WGK	Water hazard classes (Wassergefährdungsklassen)
TT	Toxic threshold
ADN	Inland waterways



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This revision follows version "B" from 21/02/2013 and is in accordance with Regulation (EC) No. 1272/2008 (CLP).

The following materials were used for the revision of the safety data sheet: Casac software, MSDS of the supplier.

Training Guidelines:

Workers who come into contact with dangerous substances must be familiarized with the effects of these substances, the methods of handling them, and protective measures to the extent necessary.

Furthermore, they must be familiarized with the principles of first aid, with the necessary sanitation procedures and with the procedures for liquidating malfunctions and accidents.

The person who handles this chemical product must be familiar with the safety rules and information given in the safety data sheet.

If the hazardous chemical substance/mixture is classified as corrosive or toxic, workers must be familiar with the Rules for Handling Corrosive/Toxic Chemical Substance/Mixture.

Persons transporting dangerous substances must be familiar with the instructions in the event of an accident in accordance with ADR/RID regulations.

More information:

The above information describes the conditions for safe handling of the product and corresponds to the current knowledge of the manufacturer, serves as instructions for the training of persons handling the product.

The manufacturer bears a guarantee for the above-described properties of the product in the recommended way of use.

The user is responsible for determining the suitability of the product for specific purposes and adapting safety measures if this use is contrary to the manufacturer's recommendations.