

UREA HYDROGEN PEROXIDE

DATE OF ISSUE: 30.03.2011 ISSUE: 1
DATE OF REVISION: 18.04.2017 VERSION: 3

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. PRODUCT IDENTIFIER:

COMMERCIAL NAME: UREA HYDROGEN PEROXIDE

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:

powder bleaching substance

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:

PRODUCER

Innovation Enterprise „IMPULS”,
mgr inż. Władysław Fediuk
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PRODUCTION PLANT:

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SECTION 2 HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Basing on Regulation (EU) nr 1272/2008:

Ox. Sol. 3 Organic peroxide, type E

Skin Corr. 1B Skin corrosion, Category 1B

H272 May intensify fire; oxidiser.

H314 Causes severe skin burns and eye damage.

ENVIRONMENTAL HAZARD:

preparation is not classified as harmful for environment

2.2. LABEL ELEMENTS

SIGNAL WORD(S):

DANGER

HAZARD PICTOGRAMS:



HAZARD STATEMENTS:

H272 May intensify fire; oxidiser.

H314 Causes severe skin burns and eye damage.

PRECAUTIONARY STATEMENTS:

P220 Keep/Store away from clothing/combustible materials.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P404 Store in a closed container.

P403 + P235 Store in a well-ventilated place. Keep cool.

2.3. OTHER HAZARDS

not defined

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1. SUBSTANCES

Chemical name: Hydrogen peroxide–urea
CAS No: 124-43-6 Molecular weight: 94,07 g / mol

SECTION 4 FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES

GENERAL: Lead out the injured beyond endangered terrain. Send unauthorized people off from the place of the accident

INHALATION: Lead out the injured into fresh air. Seek medical attention and show the label.

SKIN: Remove and clean contaminated clothing and shoes. Immediately wash affected areas with copious amounts of water. If disease's symptoms appear, seek medical attention

EYE: Immediately flush eyes with running water for at least 15 minutes. If irritation persists, seek medical attention

INGESTION: If swallowed DO NOT induce vomiting. Rinse mouth with water then give water to drink by small portions. Seek medical attention and show the label

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Causes severe skin burns and eye damage

4.3. IDENTIFICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Not defined

SECTION 5 FIREFIGHTING MEASURES



SAFETY DATA SHEET

In accordance with the Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 (REACH)

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Oxidiser, may intensify fire;

5.1. EXTINGUISHING MEDIA:

Water, extinguishing foam and powder

5.2. SPECIAL HAZARD ARISING FROM THE SUBSTANCE OR MIXTURE:

Product is not flammable. It liberates oxygen which sustains fire. In case of fire liberates dangerous gases: nitrogen oxides.

5.3. ADVICE FOR FIREFIGHTERS:

Use gastight protective clothing and personal breathing apparatus.

Do not allow the after-extinguishing water to get into groundwater or surface waters

SECTION 6

ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

Avoid contact with the substance. Protect eyes. In case of contamination, wash with plenty of water. Avoid raising dust. Do not inhale dust. Use safety goggles and dust filter mask.

6.2. ENVIRONMENTAL PRECAUTIONS:

Damaged container separate from others and seal. Do not allow the preparation to get into groundwater flow.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:

Carefully shovel spills into appropriate containers for disposal. Universal adsorbing, neutral agents can be used. To remove residue, rinse with water.

6.4. REFERENCE TO OTHER SECTIONS:

Spilled preparation must not be put back to the original packaging

SECTION 7

HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING:

Provide good ventilation. Follow the rules of work safety and hygiene concerning chemical substances. Do not allow the preparation to get into sewage system. A training concerning work safety and hygiene in the range of handling with caustic substances is required

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Store the product in dry, cool and well ventilated areas, far from the source of heat. Do not keep with inflammable materials. Keep in tightly closed containers in the temperature between 15-25°C. Packaging should be regularly visually controlled to check tightness

7.3. SPECIFIC END USE(S):

Not defined

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. CONTROL PARAMETERS:

VALUE OF MAC (MAXIMUM ACCEPTABLE CONCENTRATION) AND IMAC (INTERIM MAXIMUM ACCEPTABLE CONCENTRATION) OF HAZARDOUS TO HEALTH AGENTS IN WORKING ENVIRONMENT (*according to the Regulation of the Health Minister, dated 6th of June 2014 – Dz. U. 2014, pos. 817, with further changes*):

Not defined

8.2. EXPOSURE CONTROLS:

8.2.1. APPROPRIATE ENGINEERING CONTROLS

Using the preparation requires general ventilation of the room. Ventilating installation should be regularly controlled

8.2.2. INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT:

Keep the preparation well away from foodstuffs. Do not eat or drink and do not smoke during work. Wash hands during stoppages and at the end of work. Do not inhale the dust. Do not let to eye contact. Avoid contact with skin and clothes.

Provide appropriate ventilation in a place of work. When value of MAC in air will be exceed it is recommended to use respiratory protection.

A) EYE/FACE PROTECTION Use protective goggles

B) SKIN PROTECTION:

I) HAND PROTECTION Use protective gloves

II) OTHER Use protective clothes and shoes

C) RESPIRATORY PROTECTION It is recommended to use anti-dust face mask. In case of raising dust use breathing apparatus.

D) THERMAL HAZARDS Not defined

8.2.3. ENVIRONMENTAL EXPOSURE CONTROLS

Product does not pose a threat for environment, but because of its chemical character it is recommended to neutralize the product before channeling to water or waste waters.

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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES
9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

		<u>Value / range</u>
a)	Appearance:	white crystalline powder
b)	Odour:	non
c)	Odour threshold:	not established
d)	pH 10 % solution:	3,5 ÷ 5,0
e)	Melting point / freezing point:	not established
f)	Initial boiling point and boiling range:	not applicable
g)	Flash point:	not established
h)	Evaporation rate:	not applicable
i)	Flammability (solid, gas):	product non-flammable, sustains fire
j)	Upper/lower flammability or explosive limits:	not established
k)	Vapour pressure:	not applicable
l)	Vapour density:	not applicable
m)	Bulk density (20°C):	~1,4 g/cm ³
n)	Solubility (ies):	soluble
o)	Partition coefficient: n-octanol/water:	not established
p)	Auto-ignition temperature:	not established
q)	Decomposition temperature:	not established
r)	Viscosity:	not applicable
s)	Explosive properties:	not established
t)	Oxidising properties:	not established

9.2. OTHER INFORMATION:

	<u>Value / range</u>
Active oxygen content:	minimum 16 %
Hydrogen peroxide content:	minimum 33 %

SECTION 10 STABILITY AND REACTIVITY
10.1. REACTIVITY

Stable under normal conditions. Product contains oxidizing substances. Stable in room temperature. Danger of decomposition under the influence of strong heating, also during contact with ions of polyvalent and heavy metals, alkalies, reducing agents

10.2. CHEMICAL STABILITY

Product kept in defined conditions stays stable during 12 months from production date

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

Stable under normal conditions. Danger of decomposition under the influence of strong heating

10.4. CONDITIONS TO AVOID

Direct sun, high temperatures, possibility of contamination

10.5. INCOMPATIBLE MATERIALS

Inflammable organic substances, strong acids and bases, heavy metals salts, reducing agents, accidental contaminations

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

Oxygen – strongly keeps the fire. During the fire and decomposition, irritating, caustic, harmful for health or toxic gases and fumes can be created

SECTION 11 TOXICOLOGICAL INFORMATION
11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Carbamide peroxide: LD50 (rat, orally) >2000 mg/kg

TOXICOLOGICAL DATA OF PREPARATION'S COMPONENTS MENTION DURING CLASSIFICATION OF THE PRODUCT:

	<i>Hydrogen peroxide</i>	<i>Urea</i>
11.1.1.a) ACUTE TOXICITY	Inhalation: LC50 (rat) > 170 mg/m ³ / 30min Ingestion: LD50 (rat) > 1026 mg/kg Skin: LD50 (rabbit) > 2000 mg/kg	Ingestion: LD50 (rat) 14300 mg/kg Skin: LD50 (rat) 8200 mg/kg
11.1.1.b) SKIN CORROSION / IRRITATION	Skin irritation	No skin irritation
11.1.1.c) SERIOUS EYE DAMAGE / IRRITATION	Causes severe eye damage	No eye irritation
11.1.1.d) RESPIRATORY OR SKIN SENSITISATION	Does not cause skin sensitisation, according to available information	Not shown
11.1.1.e) GERM CELL MUTAGENICITY	Does not show mutagenicity, according to available information	Amesa in vitro test - negative
11.1.1.f) CARCINOGENICITY	Does not show carcinogenicity, according to available information	Not defined

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11.1.1.g) REPRODUCTIVE TOXICITY	Does not show reproductive toxicity, according to available information	Not defined
11.1.1.h) STOT – SINGLE EXPOSURE	May cause respiratory irritation	Not defined
11.1.1.i) STOT – REPEATED EXPOSURE	Nie zaobserwowano działania toksycznego na narządy docelowe przy narażeniu powtarzalnym	Not defined
11.1.1.j) ASPIRATION HAZARD	Does not show aspiration hazard, according to available information.	Not defined

SECTION 12
ECOLOGICAL INFORMATION

Product has not been classified as harmful for environment

INFORMACJE EKOLOGICZNE SKŁADNIKÓW MIESZANINY UJĘTYCH PRZY JEJ KLASYFIKOWANIU:

	<i>Hydrogen peroxide</i>	<i>Urea</i>
12.1. TOXICITY	Acute to freshwater fish: LC50 (24h) : 16,4 mg/l Acute to aquaeus invertebrates: EC50 (48h) : 2,4 mg/l Chronic to aquaeus invertebrates: NOEC: 0,63 mg/l Aquatic algae: Algae: NOEC: 0,63 mg/l To microorganisms: EC50: 466 mg/l	Not defined
12.2. PERSISTENCE AND DEGRADABILITY	Is considered as readily biodegradable. In the air hydrogen peoxide is decomposed in photolysis process. Half-life in the atmosphere for hydrogen peroxide is predicted as 24 hours.	Not defined
12.3. BIOACCUMULATIVE POTENTIAL	There are no experimental results on bioaccumulation available.	Not defined
12.4. MOBILITY IN SOIL	Being highly soluble in water (in all proportions) and highly polar substance, no remarkable adsorption to soil and sediment is expected for hydrogen peroxide and the mobility in soil is expected to be high.	Not defined
12.5. RESULTS OF PBT I VPVB ASSESSMENT	The PBT and vPvB assessment does not concern nonorganic substances	Not defined
12.6. OTHER ADVERSE EFFECTS	Hydrogen peroxide is not listed in Regulation (EC) 2037/2000 as the substance potentially depleting the ozone layer. In case of accidental release of hydrogen peroxide into water environment acute toxicity and chronic toxicity can be observed for fish and aquatic invertebrates.	Does not contain heavy metals

Biodegradation: Tested substance: hydrogen peroxide
Result: easy biodegradable

Tested substance: urea
Result: easy biodegradable

Ecotoxicity:
Toxity for fish: LC50
Dose: 16,4 mg/l
Exposition time: 96 h
Tested substance: hydrogen peroxide, 100%

Toxity for bacteria: EC10
Dose: > 10 000 mg/l
Exposition time: 16 h
Tested substance: urea

SECTION 13
DISPOSAL CONSIDERATIONS
13.1. WASTE TREATMENT METHODS
PRODUCT:

Compliance the rules of the Act dated 14th of December 20012 about wastes (Dz. U. Nr 2013, pos. 21) with further changes.

Waste classification in accordance with the Regulation of the Minister of the Environment dated 09th of December 2014 (Dz. U. 2014, poz.1923).

Waste code: 16 09 04 – other not mentioned oxidizing substances

Product should be considered as an organic compound and should be utilized in accordance with Local Regulations.

Undiluted product cannot be directed into sewage system or sewage treatment plant

PACKAGING:

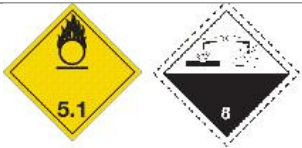
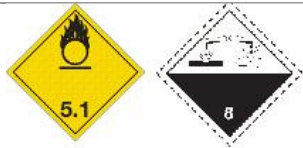
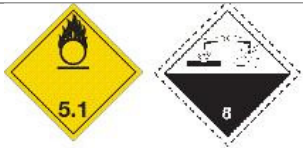
Disobey the rules of the Act dated 11 May 2001 about packaging and its wastes (Dz. U. Nr 63, pos. 638) with further changes

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 Waste code: 15 01 02 – plastic packaging
 The packaging of repeated usage after rinsing can be used again or recycled

SECTION 14 TRANSPORT INFORMATION

		Overland transport ADR/RID	Air transport ICAO/IATA	Sea transport IMDG/IMO
14.1	UN number :	1511	1511	1511
14.2	UN proper shipping name	Carbamide hydroperoxide	Carbamide hydroperoxide	Carbamide hydroperoxide
14.3	Transport hazard class(es)	5.1 „Oxidizing materials” and 8 „Caustic materials”	5.1 „Oxidizing materials” and 8 „Caustic materials”	5.1 „Oxidizing materials” and 8 „Caustic materials”
	Use warning sticker			
14.4	Packing group	III	III	III
14.5	Environmental hazards	Proper conditions transport and safety rules compliance protect from threat	Proper conditions transport and safety rules compliance protect from threat	Proper conditions transport and safety rules compliance protect from threat
14.6	Special precaution for users	Follow with section 6, 7 and 8 of MSDS	Follow with section 6, 7 and 8 of MSDS	Follow with section 6, 7 and 8 of MSDS
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable	Not applicable	Not applicable

SECTION 15 REGULATORY INFORMATION
15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) with further changes.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures.

Regulation (EU) No) 2015/830 of 28th May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Regulation (EC) No 1152/2010 of 8 December 2010 amending, for the purpose of its adaptation to technical progress, Regulation (EC) No 440/2008 laying down test methods pursuant to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents with further changes.

Act dated 25th of February 2011 about chemical substances and its mixtures – Dz. U. Nr 63, pos. 322.

Act dated 20th of March 2015 about changes in Act about chemical substances and its mixtures (Dz. U. 2015, poz. 675) with further changes.

Regulation of the Minister of the Health dated 20th fo April 2012 concerning marking of packaging of dangerous substances and preparations and some chemical preparations (Dz. U. Nr 2012, pos. 455) with further changes.

The value of MAC and IMAM is in accordance with the Regulation of the Minister of the Labor and Social Politic dated 06th of June 2014 (Dz. U. Nr 2014, pos. 817) with further changes.

Act dated 14th of December 2012 about waste - Dz. U. Nr 2013, pos. 21, with further changes.

Waste classification in accordance with the Regulation of the Minister of the Environment dated 09th of December 2014 (Dz. U. Nr 2014, pos. 1923 with further changes).

Act dated 13th of June 2013 about packaging and its wastes (Dz. U. Nr 2013, pos. 888) with further changes.

Preparation marking that results from the classification on Regulation (EU) no 1272/2008:

SIGNAL WORD(S):

DANGER

HAZARD PICTOGRAMS:

HAZARD STATEMENTS:

H272 May intensify fire; oxidiser.

H314 Causes severe skin burns and eye damage.

PRECAUTIONARY STATEMENTS:

P220 Keep/Store away from clothing/combustible materials.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P404 Store in a closed container.

P403 + P235 Store in a well-ventilated place. Keep cool.

15.2. CHEMICAL SAFETY ASSESSMENT:

No chemical safety assesment has been made

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SECTION 16

OTHER INFORMATION

The information contained herein is based on current knowledge and experience: no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information obtained by the user. No warranty is expressed or implied regarding the accuracy of this data, the results to be obtained from the use thereof, or that any such use will not infringe any patent. Users should make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials, the safety and health of employees and customers, and the protection of the environment. This information is furnished upon the condition the person receiving it shall determine the suitability for the particular purpose. This SDS is to be used as a guideline for safe work practices and emergency response

Legend to abbreviations and acronyms used in the safety data sheet

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE	Acute Toxicity Estimates.
BCF	Bioconcentration Factor - the accumulation of a chemical in or on an organism when the source of chemical is solely water.
CAS no	A numerical identifier assigned by Chemical Abstracts Service (CAS).
CLP	Regulation on classification, labelling and packaging of substances and mixtures.
DNEL	Derived no-effect level.
EC50	Effective concentration - effective concentration of a substance which induces a reaction on the level of 50% of the maximal value.
EC no	A identifier that is assigned to chemical substances in EINECS or ELINCS inventory.
EINECS	European Inventory of Existing Commercial chemical Substances.
ELINCS	European List of Notified Chemical Substances.
IATA	International Air Transport Association.
IC50	Half maximal inhibitory concentration causing 50 % inhibition of a given parameter.
IMDG	International Maritime Dangerous Goods Code.
LC50	Lethal concentration - is the concentration required to kill 50% of tested animals after a specified test duration.
LD50	Lethal dose - is the dose required to kill 50% of tested animals after a specified test duration.
NOEC	No observed effect concentration.
MAC(TWA)	Maximum Admissible Concentration.
MAC(STEL)	Maximum Admissible Short-Term Concentration.
PNEC	Predicted No-Effect Concentration.
RID	Regulations concerning the international railway transport of dangerous goods.
UN no	four-digit number that identify material in the registry of hazardous substances of United Nations.
vPvB	Very persistent and very bioaccumulative substance.

The form of safety data sheet has been adapted to requirements of Regulation (EU) No 2015/830 of 28th May 2010 r amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

01.07.2016- adaption of classification to Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures.

18.04.2017- updates of section 15 involving regulation/legislations documents.