

SAFETY DATA SHEET

according to: 1907/2006, 2015/830

Buffer Uni

Version EN: 2.0

Issue: 20.08.2019

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

1.1. Product identifier

Buffer Uni

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

Identified uses: laboratory chemicals

Uses advised against: not specified

1.3. Details of the supplier of the safety data sheet

Producer:

EURx Sp. z o.o.

80-297 Gdańsk, ul. Przyrodników 3

tel. +48 58 524-06-97, +48 58 341-74-23, 8.00 -16.00, working days.

E-mail address: eurx@eurx.com.pl

1.4. Emergency telephone number

112 (Emergency telephone)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

According to Reg. 1272/2008

Skin Corr. 1B; H314

Eye Dam. 1; H318

Human health dangers:

Causes severe skin burns and eye damage.

Environmental hazards:

None.

Physic-chemical hazards:

None.

2.2. Label elements

Contains: Sodium hydroxide [CAS No.: 1310-73-2]

Pictograms:



Signal Word: Danger

Hazard Statement (H):

H314 – Causes severe skin burns and eye damage.

Precautionary Statement (P):

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

P301+P330+P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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

P310 – Immediately call a POISON CENTER/doctor

P405 – Store locked up.

2.3. Other hazards

The product contains no substance meet the criteria for PBT or vPvB.

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Mixtures

Hazardous components:

Product identifier	Contains [%]	Classification CLP	
		Hazard Class and Category Code(s)	Hazard Statement Code(s)
Sodium hydroxide* ⁽¹⁾ CAS No.: 1310-73-2 EINECS No.: 215-185-5 Index No.: 011-002-00-6 REACH No.: 01-2119457892-27-XXXX	≥ 1 - ≤ 4	Skin Corr. 1A	H314

For full text of H-statements: see SECTION 16

*Substance for which workplace exposure limits are available

⁽¹⁾ Specific Conc. Limits:

Eye Irrit. 2; 0,5 % ≤ C < 2 %

Skin Irrit. 2; 0,5 % ≤ C < 2 %

Skin Corr. 1A; C ≥ 5 %

Skin Corr. 1B; 2 % ≤ C < 5 %

SECTION 4: First aid measures

4.1. Description of first aid measures

Skin contact

Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water. Keep warm and in a quiet place. Call a physician or poison control centre immediately. Wash contaminated clothing before re-use.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician or poison control centre immediately. Take victim immediately to hospital.

Inhalation

Move to fresh air. Oxygen or artificial respiration if needed. Victim to lie down in the recovery position, cover and keep him warm. Call a physician immediately.

Ingestion

Call a physician or poison control centre immediately. Take victim immediately to hospital. If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Artificial respiration and/or oxygen may be necessary.

4.2. Most important symptoms and effects, both acute and delayed

Causes severe skin burns and eye damage.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: foam, dry powder extinguishers, CO₂, water spray. Use appropriate extinguishing method for conditions.

Unsuitable extinguishing media: Do not use a direct water jet.

5.2. Special hazards arising from the substance or mixture

The product is not flammable. Not combustible.

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Reacts violently with water. Gives off hydrogen by reaction with metals.

5.3. Advice for firefighters

Containers in fire area cooled with water spray, if it is possible to remove the danger zone.

Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Do not allow fire-fighting water run-off into surface water, groundwater and sewer.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: to notify the appropriate service. Remove from the threats all person who does not participate in the removal of failure.

For emergency responders: Ventilate the area. Wear suitable protective clothing.

6.2. Environmental Precautions

Should not be released into the environment. Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and material for containment and cleaning up

Absorb with inert, absorbent material (such as sand, earth, vermiculite, diatomaceous earth, etc.). Placed the contaminated material in properly labeled containers for disposal in accordance with applicable regulations.

6.4. Reference to other sections

Disposal considerations – see section 13.

Personal precautions – see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use only in well ventilated area. Avoid breathing vapors. Avoid contact with eyes. Avoid contact with skin.

Handle in accordance with good industrial hygiene and safety practice: Do not eat, drink and smoke at work, wash your hands after use, remove contaminated clothing and protective equipment before entering places for meals.

7.2. Conditions for safe storage, including any incompatibilities

Store in original container. Keep in a well-ventilated and dry place. Keep in properly labelled containers. Keep container closed. Keep away from incompatible products. To avoid thermal decomposition, do not overheat.

7.3. Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits:

Sodium hydroxide [CAS No.: 1310-73-2]

	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
Australia				2 (1)
Austria		2 inhalable aerosol		4 inhalable aerosol
Belgium		2		
Canada – Ontario				2 (1)
Canada – Québec				2 (1)
Denmark		2		2
Finland				2 (1)
France		2		
Hungary		2		2

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Ireland			2 (1)
Japan - JSOH		2 (1)	
Latvia		0,5	
New Zealand			2 (1)
People's Republic of China			2 (1)
Poland		0,5	1
Romania		1	3 (1)
Singapore			2
South Korea			2 (1)
Spain		2	
Sweden		1 (1)	2 (1)(2)
Switzerland		2 inhalable aerosol	2 inhalable aerosol
USA – NIOSH			2 (1)
USA – OSHA		2	
United Kingdom			2
	Remarks		
Australia	(1) Ceiling limit value		
Canada - Ontario	(1) Ceiling limit value		
Canada - Québec	(1) Ceiling limit value		
Finland	(1) Ceiling limit value		
Ireland	(1) 15 minutes reference period		
Japan - JSOH	(1) Occupational exposure limit ceiling: Reference value to the maximal exposure concentration of the substance during a working day		
New Zealand	(1) Ceiling limit value		
People's Republic of China	(1) Ceiling limit value		
Romania	(1) 15 minutes average value		
South Korea	(1) Ceiling limit value		
Sweden	(1) Inhalable fraction (2) 15 minutes average value		
USA - NIOSH	(1) Ceiling limit value (15 min)		

8.2. Exposure controls

Appropriate engineering controls:

Ensure adequate ventilation. Apply technical measures to comply with the occupational exposure limits.

Provide eye wash bottles or eye wash stations in compliance with applicable standards.

Take off contaminated clothing and shoes immediately.

Handle in accordance with good industrial hygiene and safety practice.

Individual protection measures, such as personal protective equipment:



Eye / face protection:

Chemical resistant goggles must be worn (EN 166).

Skin protection

Hand protection:

It is recommended to use protective gloves resistant to chemicals (EN374).

Suitable material:

PVC, Neoprene, Natural Rubber, butyl-rubber (thickness > 0,38mm, penetration time > 480min.).

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The selection of suitable gloves does not only depend on the material, but also on the brand and quality resulting from differences in manufacturers. Resistance of the material, the glove can be determined after the tests. The exact time of the destruction of the protective gloves must be determined by the manufacturer.

Other:

Protective clothing.

Respiratory protection:

Avoid breathing vapors. If there is a risk of exposure to concentrated vapors, use a mask with filter (EN 143).

Thermal hazards:

Not applicable.

Environmental exposure controls:

Not allowed to spread in the environment and run-off into drains and watercourses.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	colorless
Odour	no data available
Odour threshold	no data available
pH	>12
Melting point/freezing point	no data available
Initial boiling point and boiling range	no data available
Flash point	no data available
Evaporation rate	no data available
Flammability	no data available
Upper/lower flammability or explosive limits	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	~1 g/cm ³
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Solubility(ies)	no data available
Decomposition temperature	no data available
Viscosity;	no data available
Explosive properties	no data available
Oxidising properties	no data available

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9.2. Other information
None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Potential for exothermic hazard.
May be corrosive to metals.

10.2. Chemical stability

Under normal circumstances the product is stable.

10.3. Possibility of hazardous reactions

Gives off hydrogen by reaction with metals.

Exothermic reaction with strong acids.

Risk of violent reaction.

Risk of explosion.

Reacts violently with water.

10.4. Conditions to avoid

Keep away from direct sunlight.

To avoid thermal decomposition, do not overheat.

Exposure to moisture.

Freezing

10.5. Incompatible materials

Metals, Oxidizing agents, Water, Acids, Aluminium, other light metals and their alloys

10.6. Hazardous decomposition products

Hydrogen

SECTION 11: Toxicological information

11.1. Information on toxicological effects

(a) acute toxicity: Based on the available data, the classification criteria are not met

(b) skin corrosion/irritation: **Causes severe skin burns and eye damage.**

(c) serious eye damage/irritation: **Causes serious eye damage.**

(d) respiratory or skin sensitisation: Based on the available data, the classification criteria are not met

(e) germ cell mutagenicity: Based on the available data, the classification criteria are not met

(f) carcinogenicity: Based on the available data, the classification criteria are not met

(g) reproductive toxicity: Based on the available data, the classification criteria are not met

(h) STOT-single exposure: Based on the available data, the classification criteria are not met

(i) STOT-repeated exposure: Based on the available data, the classification criteria are not met

(j) aspiration hazard: Based on the available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

The product is not classified as dangerous to the environment.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The product contains no substance meet the criteria for PBT or vPvB.

12.6. Other adverse effects

Not applicable.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal methods:

Dilute with plenty of water. Solutions with high pH-value must be neutralized before discharge. Neutralise with acid. In accordance with local and national regulations.

Contaminated packaging:

Where possible recycling is preferred to disposal or incineration. Clean container with water. Dispose of as unused product. In accordance with local and national regulations.

EU REGULATIONS

Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

SECTION 14: Transport information

14.1. UN number

ADR/RID/IMDG/ICAO: 1824

14.2. UN proper shipping name

ADR/RID/IMDG: SODIUM HYDROXIDE, SOLUTION

ICAO: Sodium hydroxide, solution

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO: 8

14.4. Packing group

ADR/RID/IMDG/ICAO: III

14.5. Environmental hazards

ADR/RID/IMDG/ICAO: no

14.6. Special precautions for user

ADR/RID/IMDG/ICAO:

Labels: 8

IMDG:

EmS code: F-A, S-B

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

EU REGULATIONS:

1. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
2. Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
3. 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).
4. Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

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15.2. Chemical safety assessment

No chemical safety assessments for the mixture.

- List of substances subject to authorization (REACH; Annex XIV): not applicable
- Candidate list of SVHCs: not applicable
- Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (REACH; Annex XVII): not applicable

SECTION 16: Other information

Abbreviations and acronyms, list of relevant hazard statements used in the safety data sheet:

H314 – Causes severe skin burns and eye damage.

H318 – Causes serious eye damage.

Skin Corr. 1A Skin corrosion cat. 1A

Skin Corr. 1B Skin corrosion cat. 1B

Eye Dam. 1 – Serious eye damage cat. 1

Skin Irrit. 2 – Skin irritation cat. 2

Eye Irrit. 2 - Eye irritation cat. 2

PBT – Persistent, Bioaccumulative and Toxic

vPvB – very Persistent and very Bioaccumulative

ADR – International Carriage of Dangerous Goods by Road

RID – International Carriage of Dangerous Goods by Rail

IMDG – International Maritime Dangerous Goods

ICAO – Safe Transport of Dangerous Goods by Air

Method of classification:

Skin Corr. 1B; H314: Calculation method

Eye Dam. 1; H318: Calculation method

Training:

Before working with the product is recommended safety training of employees in connection with the occurrence of workplace chemicals. Documentation should be prepared and employees should be familiarized with the results of risk assessment in the workplace associated with the presence of chemical agents.

Key literature:

Annex to Regulation (EU) 2015/830.

Current legislation (Section 15).

Information Agency for Chemical Substances.

The information in this MSDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this MSDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

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

1.1. Product identifier Basic

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

Identified uses: laboratory chemicals

Uses advised against: not specified

1.3. Details of the supplier of the safety data sheet

Producer:

EURx Sp. z o.o.

80-297 Gdańsk, ul. Przyrodników 3

tel. +48 58 524-06-97, +48 58 341-74-23, 8.00 -16.00, working days.

E-mail address: eurx@eurx.com.pl

1.4. Emergency telephone number 112 (Emergency telephone)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

According to Reg. 1272/2008

Acute Tox. 4; H302

Acute Tox. 4; H332

Aquatic Chronic 3; H412

Human health dangers:

Harmful if swallowed or if inhaled.

Environmental hazards:

Harmful to aquatic life with long lasting effects.

Physic-chemical hazards:

None.

2.2. Label elements

Contains: Ammonium thiocyanate (CAS No.: 1762-95-4)

Pictograms:



Signal Word: Warning

Hazard Statement (H):

H302+H332 – Harmful if swallowed or if inhaled

H412 – Harmful to aquatic life with long lasting effects

Precautionary Statement (P):

P273 – Avoid release to the environment.

P301+P312 – IF SWALLOWED: Call a POISON CENTER/ doctor/... if you feel unwell.

P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.

EUH032 – Contact with acids liberates very toxic gas

2.3. Other hazards

The product contains no substance meet the criteria for PBT or vPvB.

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Mixtures

Hazardous components:

Product identifier	Contains [%]	Classification CLP	
		Hazard Class and Category Code(s)	Hazard Statement Code(s)
Ammonium thiocyanate* CAS No.: 1762-95-4 EINECS No.: 217-175-6 Index No.: 615-004-00-3 REACH No.: -	<50	Acute Tox. 4 Aquatic Chronic 3	H302 H312 H332 H412
4-morpholinopropanesulphonic acid CAS No.: 1132-61-2 EINECS No.: 214-478-5 Index No.: - REACH No.: -	≤1	Skin Irrit. 2 Eye Irrit. 2 STOT SE 3	H315 H319 H335

For full text of H-statements: see SECTION 16

*Substance for which workplace exposure limits are available

Components with Occupational Exposure Limits:

Glycerol (CAS: 56-81-5): <10%

SECTION 4: First aid measures

4.1. Description of first aid measures

Skin contact

Remove contaminated clothing. Wash off with plenty of water. Seek medical attention.

Eye contact

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

Inhalation

Keep patient calm, remove to fresh air, seek medical attention.

Ingestion

Do NOT induce vomiting. Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Harmful if swallowed or if inhaled.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: foam, dry powder extinguishers, CO₂, water spray. Use appropriate extinguishing method for conditions.

Unsuitable extinguishing media: Do not use a direct water jet.

5.2. Special hazards arising from the substance or mixture

Development of hazardous combustion gases or vapours possible in the event of fire.

Hazardous combustion products: hydrogen sulphide, ammonia, carbon oxides, hydrocyanic acid (HCN).

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5.3. Advice for firefighters

Containers in fire area cooled with water spray, if it is possible to remove the danger zone.
Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.
Do not allow fire-fighting water run-off into surface water, groundwater and sewer.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Notify the appropriate service. Keep unnecessary people away; isolate hazard area.
For emergency responders: Ventilate the area. Wear suitable protective clothing.

6.2. Environmental Precautions

Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Absorb with inert, absorbent material (such as sand, earth, vermiculite, diatomaceous earth, etc.). Placed the contaminated material in properly labeled containers for disposal in accordance with applicable regulations.

6.4. Reference to other sections

Disposal considerations – see section 13.

Personal precautions – see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use only in well ventilated area. Avoid breathing vapors. Avoid contact with eyes. Avoid contact with skin.
Handle in accordance with good industrial hygiene and safety practice: Do not eat, drink and smoke at work, wash your hands after use, remove contaminated clothing and protective equipment before entering places for meals.

7.2. Conditions for safe storage, including any incompatibilities

Store in original container. Keep in a well-ventilated and dry place. Keep in properly labelled containers. Keep container closed. Keep away from acids or oxidants.

Thiocyanate solutions as well as crystals are corrosive to mild steel and lower grade stainless steel. Glass, titanium, rubber, PVC, PE, PTFE, Polyester and baked enamel linings are resistant under normal conditions. Test in case of doubt.

7.3. Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits:

Ammonium thiocyanate [CAS No.: 1762-95-4]

	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
Latvia		5		

Glycerol, mist [CAS: 56-81-5]

	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
Australia		10 (1)		
Belgium		10		
Canada - Ontario		10		
Canada - Québec		10		
Finland		20		

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France		10	
Germany (AGS)		200 (1)	400 (1)(2)
Germany (DFG)		200 (1)	400 (1)(2)
Ireland		10	
New Zealand		10 (1)	
Poland		10	
Singapore		10	
South Korea		10	
Spain		10	
Switzerland		50 inhalable aerosol	100 inhalable aerosol
USA - OSHA		15 inhalable dust	
		5 respirable dust	
United Kingdom		10	
	Remarks		
Australia	(1) This value is for inhalable dust containing no asbestos and < 1% crystalline silica.		
Germany (AGS)	(1) Inhalable fraction (2) 15 minutes average value		
Germany (DFG)	(1) Inhalable fraction (2) 15 minutes average value		
New Zealand	(1) The value for inhalable dust containing no asbestos and less than 1% free silica.		

8.2. Exposure controls

Appropriate engineering controls:

Ensure adequate ventilation.

Handle in accordance with good industrial hygiene and safety practice.

Individual protection measures, such as personal protective equipment:



Eye / face protection:

Chemical resistant goggles (EN 166).

Skin protection

Hand protection:

It is recommended to use protective gloves resistant to chemicals (EN374).

Suitable material:

Nitrile rubber (thickness: >0,4mm, penetration time: >480min.).

The selection of suitable gloves does not only depend on the material, but also on the brand and quality resulting from differences in manufacturers. Resistance of the material, the glove can be determined after the tests. The exact time of the destruction of the protective gloves must be determined by the manufacturer.

Other:

Protective clothing.

Respiratory protection:

Use with adequate ventilation. In case of insufficient local exhaust ventilation: respiratory air fed breathing apparatus if there is a risk of exposure to high vapour concentrations. If using a half mask: organic vapour cartridge AX type.

Thermal hazards:

Not applicable.

Environmental exposure controls:

Not allowed to spread in the environment and run-off into drains and watercourses.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid
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Colour	colorless
Odour	no data available
Odour threshold	no data available
pH	~6.0
Melting point/freezing point	no data available
Initial boiling point and boiling range	no data available
Flash point	no data available
Evaporation rate	no data available
Flammability	no data available
Upper/lower flammability or explosive limits	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Solubility(ies)	no data available
Decomposition temperature	no data available
Viscosity;	no data available
Explosive properties	no data available
Oxidising properties	no data available

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reaction with strong oxidizing agents, Reaction with strong acids.

10.2. Chemical stability

Under normal circumstances the product is stable.

10.3. Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

10.5. Incompatible materials

Oxidizing agents, acids.

10.6. Hazardous decomposition products

Under fire conditions: Hydrogen sulphide, sulphur dioxide, ammonia, hydrocyanic acid, Carbon oxides, nitric oxides.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

(a) acute toxicity: **Harmful if swallowed or if inhaled.**

ATE mix oral: >1000mg/kg

ATE mix dermal: >2200mg/kg

ATE mix inhalation (vapours): >21mg/l

ATE mix inhalation (dust/mist): >2,8mg/l

(b) skin corrosion/irritation: Based on the available data, the classification criteria are not met

(c) serious eye damage/irritation: Based on the available data, the classification criteria are not met

(d) respiratory or skin sensitisation: Based on the available data, the classification criteria are not met

(e) germ cell mutagenicity: Based on the available data, the classification criteria are not met

(f) carcinogenicity: Based on the available data, the classification criteria are not met

(g) reproductive toxicity: Based on the available data, the classification criteria are not met

(h) STOT-single exposure: Based on the available data, the classification criteria are not met

(i) STOT-repeated exposure: Based on the available data, the classification criteria are not met

(j) aspiration hazard: Based on the available data, the classification criteria are not met

Ammonium thiocyanate [CAS No.: 1762-95-4]

LD50 oral, rat: 750mg/kg

4-morpholinopropanesulphonic acid [CAS No.: 1132-61-2]

LD50 oral, rat: >2000mg/kg

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The product contains no substance meet the criteria for PBT or vPvB.

12.6. Other adverse effects

Not applicable.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal methods:

Waste must be disposed of in accordance with local authority requirements.

Contaminated packaging:

Packaging, that cannot be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.

EU REGULATIONS

Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

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SECTION 14: Transport information

14.1. UN number

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

14.4. Packing group

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

14.5. Environmental hazards

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

14.6. Special precautions for user

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

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

Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

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

EU REGULATIONS:

1. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
2. Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
3. 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).
4. Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

15.2. Chemical safety assessment

No chemical safety assessments for the mixture.

- List of substances subject to authorization (REACH; Annex XIV): not applicable
- Candidate list of SVHCs: not applicable
- Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (REACH; Annex XVII): not applicable

SECTION 16: Other information

Abbreviations and acronyms, list of relevant hazard statements used in the safety data sheet:

- H302** – Harmful if swallowed
- H312** – Harmful in contact with skin
- H315** – Causes skin irritation
- H319** – Causes serious eye irritation

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H332 – Harmful if inhaled
H335 – May cause respiratory irritation
H412 – Harmful to aquatic life with long lasting effects
Acute Tox. 4 – Acute toxicity cat. 4
Skin Irrit. 2 – Skin irritation cat. 2
Eye Irrit. 2 – Eye irritation cat. 2
STOT SE 3 – Specific target organ toxicity - single exposure cat. 3
Aquatic Chronic 3 – Hazardous to the aquatic environment cat. 3
ATE – Acute Toxicity Estimate
LD50 – lethal dose, 50%
PBT – Persistent, Bioaccumulative and Toxic
vPvB – very Persistent and very Bioaccumulative
ADR – International Carriage of Dangerous Goods by Road
RID – International Carriage of Dangerous Goods by Rail
IMDG – International Maritime Dangerous Goods
ICAO – Safe Transport of Dangerous Goods by Air

Method of classification:

Acute Tox. 4; H302 – Calculation method
 Acute Tox. 4; H332 – Calculation method
 Aquatic Chronic 3; H412 – Calculation method

Training:

Before working with the product is recommended safety training of employees in connection with the occurrence of workplace chemicals. Documentation should be prepared and employees should be familiarized with the results of risk assessment in the workplace associated with the presence of chemical agents.

Key literature:

Annex to Regulation (EU) 2015/830.
 Current legislation (Section 15).
 Information Agency for Chemical Substances.

The information in this MSDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this MSDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

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

1.1. Product identifier

Cell R

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

Identified uses: laboratory chemicals

Uses advised against: not specified

1.3. Details of the supplier of the safety data sheet

Producer:

EURx Sp. z o.o.

80-297 Gdańsk, ul. Przyrodników 3

tel. +48 58 524-06-97, +48 58 341-74-23, 8.00 -16.00, working days.

E-mail address: eurx@eurx.com.pl

1.4. Emergency telephone number 112 (Emergency telephone)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

According to Reg. 1272/2008

Product is not classified as dangerous.

Human health dangers:

None.

Environmental hazards:

None.

Physic-chemical hazards:

None.

2.2. Label elements

Pictograms:

None

Signal Word:

None

Hazard Statement (H):

None.

Precautionary Statement (P):

None.

EUH210 Safety data sheet available on request

2.3. Other hazards

The product contains no substance meet the criteria for PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable.

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3.2. Mixtures

Hazardous components:

Substance name	contains %	Classification 1272/2008	
		Hazard Class and Category Code(s)	Hazard Statement Code(s)
Disodium dihydrogen ethylenediaminetetraacetate CAS No.: 6381-92-6 WE No.: 205-358-3 Index No.: - REACH No.: 01-2119486775-20-XXXX	<0.5	Acute Tox. 4 STOT RE 2	H332 H373

Full text of H-phrases in Section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Skin contact

Wash contaminated skin with soap and water, rinse thoroughly with water, in case of irritation, redness, consult your doctor.

Eye contact

Rinse with plenty water (15min). Avoid strong water jet because of the danger of damage to the cornea. Consult your doctor.

Inhalation

Move to fresh air. Consult a physician if any symptoms develop and persist.

Ingestion

Do not induce vomiting. Rinse mouth with water. Give to drink a glass of water if victim is conscious Consult your doctor.

4.2. Most important symptoms and effects, both acute and delayed

Not applicable.

4.3. Indication of any immediate medical attention and special treatment needed

The decision about how to proceed after the physical assessment of the victim.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Powder, alcohol resistance foam. Use extinguishing methods appropriate to surrounding conditions.

Unsuitable extinguishing media: Do not use a direct water jet.

5.2. Special hazards arising from the substance or mixture

Not applicable.

5.3. Advice for firefighters

Containers in fire area cooled with water spray, if it is possible to remove the danger zone. Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes. Do not allow fire-fighting water run-off into surface water, groundwater and sewer.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: to notify the appropriate service. Remove from the threats all person who does not participate in the removal of failure.

For emergency responders: Ensure adequate ventilation. Avoid direct contact with eyes and skin.

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6.2. Environmental Precautions

Do not discharge into the drains/surface water/groundwater.

6.3. Methods and material for containment and cleaning up

Prevent spreading. Remove with inert absorbent (e.g. sand or vermiculite), and place in a close containers and hold for waste disposal.

6.4. Reference to other sections

Disposal considerations – see section 13.

Personal precautions – see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure adequate ventilation. Avoid contact with eyes. Avoid spilling. Avoid inhaling the product vapors. Work in accordance with the principles of safety and hygiene: Do not eat, drink and smoke at work, wash your hands after use, remove contaminated clothing and protective equipment before entering places for meals.

7.2. Conditions for safe storage, including any incompatibilities

The product stored in a cool, dry, well ventilated room, in the tightly closed container. Protect from direct sunlight.

7.3. Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits: no substance for which workplace exposure limits are available.

8.2. Exposure controls

Appropriate engineering controls: Use in well-ventilated rooms.

Individual protection measures, such as personal protective equipment:



Eye / face protection:

Use goggles or a protective face mask (according to EN 166).

Skin protection

Hand protection:

It is recommended to use protective gloves resistant to chemicals in accordance with EN-PN 374:2005.

Recommended materials: Nitrile rubber (thickness > 0.11mm, penetration time > 480min.).

The selection of suitable gloves does not only depend on the material, but also on the brand and quality resulting from differences in manufacturers. Resistance of the material, the glove can be determined after the tests. The exact time of the destruction of the protective gloves must be determined by the manufacturer.

Other:

Protective clothing.

Respiratory protection:

Avoid breathing vapors.

Thermal hazards:

Not applicable.

Environmental exposure controls:

Not allowed to spread in the environment and run-off into drains and watercourses.

SECTION 9: Physical and chemical properties

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9.1. Information on basic physical and chemical properties

Appearance	liquid
Colour	colorless
Odour	no data available
Odour threshold	no data available
pH	7.5
Melting point/freezing point	no data available
Initial boiling point and boiling range	no data available
Flash point	no data available
Evaporation rate	no data available
Flammability	no data available
Upper/lower flammability or explosive limits	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Solubility(ies)	no data available
Decomposition temperature	no data available
Viscosity;	no data available
Explosive properties	no data available
Oxidising properties	no data available

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

None.

10.2. Chemical stability

Under normal circumstances the product is stable.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Direct sunlight.

10.5. Incompatible materials

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Strong oxidizing agents.

10.6. Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

- (a) acute toxicity: Based on the available data, the classification criteria are not met
- (b) skin corrosion/irritation: Based on the available data, the classification criteria are not met
- (c) serious eye damage/irritation: Based on the available data, the classification criteria are not met
- (d) respiratory or skin sensitisation: Based on the available data, the classification criteria are not met
- (e) germ cell mutagenicity: Based on the available data, the classification criteria are not met
- (f) carcinogenicity: Based on the available data, the classification criteria are not met
- (g) reproductive toxicity: Based on the available data, the classification criteria are not met
- (h) STOT-single exposure: Based on the available data, the classification criteria are not met
- (i) STOT-repeated exposure: Based on the available data, the classification criteria are not met
- (j) aspiration hazard: Based on the available data, the classification criteria are not met

Disodium dihydrogen ethylenediaminetetraacetate:

LD50:2000mg/kg (oral, rat)

SECTION 12: Ecological information

12.1. Toxicity

The product is not classified as dangerous to the environment.

Disodium dihydrogen ethylenediaminetetraacetate:

For fish: LC50 (Leuciscus idus) > 500mg/l, 96h
For dapnia: EC50 (Dapnia magna) - > 100mg/l, 24h

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The product contains no substance meet the criteria for PBT or vPvB.

12.6. Other adverse effects

Not applicable.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste: The code must be given individually depending on industry and location of use.
Packaging: Dispose of product waste in accordance with local regulations. The packaging is recyclable

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EU REGULATIONS

Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

SECTION 14: Transport information

ADR/RID/IMDG/ICAO:

14.1. UN number

not classified as dangerous

14.2. UN proper shipping name

not classified as dangerous

14.3. Transport hazard class(es)

not classified as dangerous

14.4. Packing group

not classified as dangerous

14.5. Environmental hazards

not classified as dangerous

14.6. Special precautions for user

not classified as dangerous

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

not classified as dangerous

SECTION 15: Regulatory information

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

EU REGULATIONS:

1. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
2. Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
3. 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).
4. Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

15.2. Chemical safety assessment

No chemical safety assessments for the mixture.

SECTION 16: Other information

Abbreviations and acronyms, list of relevant hazard statements used in the safety data sheet:

H332 – Harmful if inhaled

H373 – May cause damage to organs through prolonged or repeated exposure

Acute Tox. 4 – Acute toxicity cat. 4

STOT RE 2 – Specific target organ toxicity - repeated exposure cat. 2

LC50 – the concentration required to kill half the members of a tested population after a specified test duration

LD50 – the dose required to kill half the members of a tested population after a specified test duration

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EC50 – effective concentration, refers to the concentration of a drug, antibody or toxicant which induces a response halfway between the baseline and maximum after a specified exposure time

BCF – bioconcentration factor

PBT – Persistent, Bioaccumulative and Toxic

vPvB – very Persistent and very Bioaccumulative

ADR – International Carriage of Dangerous Goods by Road

RID – International Carriage of Dangerous Goods by Rail

IMDG – International Maritime Dangerous Goods

ICAO – Safe Transport of Dangerous Goods by Air

Method of classification:

Product is not classified as dangerous.

Training:

Not required.

Key literature:

Annex to Regulation (EU) 2015/830.

Current legislation (Section 15).

Information Agency for Chemical Substances.

The information in this MSDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this MSDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

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

1.1. Product identifier Lysis Blue

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

Identified uses: laboratory chemicals

Uses advised against: not specified

1.3. Details of the supplier of the safety data sheet

Producer:

EURx Sp. z o.o.

80-297 Gdańsk, ul. Przyrodników 3

tel. +48 58 524-06-97, +48 58 341-74-23, 8.00 -16.00, working days.

E-mail address: eurx@eurx.com.pl

1.4. Emergency telephone number 112 (Emergency telephone)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

According to Reg. 1272/2008

Skin Irrit. 2; H315

Eye Irrit. 2; H319

Human health dangers:

Causes skin irritation. Causes serious eye irritation.

Environmental hazards:

None.

Physic-chemical hazards:

None.

2.2. Label elements

Pictograms:



Signal Word: Warning

Hazard Statement (H):

H315 – Causes skin irritation

H319 – Causes serious eye irritation

Precautionary Statement (P):

P280 – Wear protective gloves/eye protection.

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

P337+P313 – If eye irritation persists: Get medical advice/ attention.

P302+P352 – IF ON SKIN: Wash with plenty of water.

P332+P313 – If skin irritation occurs: Get medical advice/ attention.

2.3. Other hazards

The product contains no substance meet the criteria for PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable.

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3.2. Mixtures

Hazardous components:

Product identifier	Contains [%]	Classification CLP	
		Hazard Class and Category Code(s)	Hazard Statement Code(s)
Sodium dodecyl sulphate ⁽¹⁾ CAS No.: 151-21-3 EINECS No.: 205-788-1 Index No.: - REACH No.: 01-2119489461-32-XXXX	≤1	Flam. Sol. 2 Acute Tox. 4 Skin Irrit. 2 Eye Dam. 1 STOT SE 3 Aquatic Chronic 3	H228 H302 H332 H315 H318 H335 H412
Sodium hydroxide* ⁽²⁾ CAS No.: 1310-73-2 EINECS No.: 215-185-5 Index No.: 011-002-00-6 REACH No.: 01-2119457892-27-XXXX	<1	Skin Corr. 1A	H314

For full text of H-statements: see SECTION 16

*Substance for which workplace exposure limits are available

⁽¹⁾ Specific Conc. Limits:

Eye Dam. 1; C ≥20%

Eye Irrit. 2; C ≥10 - <20%

⁽²⁾ Specific Conc. Limits:

Eye Irrit. 2; 0,5 % ≤ C < 2 %

Skin Irrit. 2; 0,5 % ≤ C < 2 %

Skin Corr. 1A; C ≥ 5 %

Skin Corr. 1B; 2 % ≤ C < 5 %

SECTION 4: First aid measures

4.1. Description of first aid measures

Skin contact

Remove contaminated clothing. Wash off with plenty of water. Seek medical attention.

Eye contact

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

Inhalation

Keep patient calm, remove to fresh air, seek medical attention.

Ingestion

Do NOT induce vomiting. Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Causes skin irritation. Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: foam, dry powder extinguishers, CO₂, water spray. Use appropriate extinguishing method for conditions.

Unsuitable extinguishing media: Do not use a direct water jet.

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5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: carbon oxides, nitrogen oxides (NO_x), sulphur oxides.

5.3. Advice for firefighters

Containers in fire area cooled with water spray, if it is possible to remove the danger zone.

Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Do not allow fire-fighting water run-off into surface water, groundwater and sewer.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Notify the appropriate service. Keep unnecessary people away; isolate hazard area.

For emergency responders: Ventilate the area. Avoid contact with eyes and skin.

6.2. Environmental Precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Absorb with inert, absorbent material (such as sand, earth, vermiculite, diatomaceous earth, etc.). Place the contaminated material in properly labeled containers for disposal in accordance with applicable regulations.

6.4. Reference to other sections

Disposal considerations – see section 13.

Personal precautions – see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use only in well ventilated area. Avoid contact with eyes. Avoid contact with skin.

Handle in accordance with good industrial hygiene and safety practice: Do not eat, drink and smoke at work, wash your hands after use, remove contaminated clothing and protective equipment before entering places for meals.

7.2. Conditions for safe storage, including any incompatibilities

Store in original container. Keep in a well-ventilated and dry place. Keep in properly labelled containers. Keep container closed.

7.3. Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits:

Sodium hydroxide [CAS No.: 1310-73-2]

	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
Australia				2 (1)
Austria		2 inhalable aerosol		4 inhalable aerosol
Belgium		2		
Canada – Ontario				2 (1)
Canada – Québec				2 (1)
Denmark		2		2
Finland				2 (1)
France		2		
Hungary		2		2

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Ireland			2 (1)
Japan - JSOH		2 (1)	
Latvia		0,5	
New Zealand			2 (1)
People's Republic of China			2 (1)
Poland		0,5	1
Romania		1	3 (1)
Singapore			2
South Korea			2 (1)
Spain		2	
Sweden		1 (1)	2 (1)(2)
Switzerland		2 inhalable aerosol	2 inhalable aerosol
USA – NIOSH			2 (1)
USA – OSHA		2	
United Kingdom			2
	Remarks		
Australia	(1) Ceiling limit value		
Canada - Ontario	(1) Ceiling limit value		
Canada - Québec	(1) Ceiling limit value		
Finland	(1) Ceiling limit value		
Ireland	(1) 15 minutes reference period		
Japan - JSOH	(1) Occupational exposure limit ceiling: Reference value to the maximal exposure concentration of the substance during a working day		
New Zealand	(1) Ceiling limit value		
People's Republic of China	(1) Ceiling limit value		
Romania	(1) 15 minutes average value		
South Korea	(1) Ceiling limit value		
Sweden	(1) Inhalable fraction (2) 15 minutes average value		
USA - NIOSH	(1) Ceiling limit value (15 min)		

Sodium dodecyl sulphate [CAS No.: 151-21-3]

DNEL general population, oral, long-term, systemic effects: 24 mg/kg

DNEL worker, dermal, long-term, local effects: 4060 mg/kg

DNEL general population, dermal, long term, systemic effects: 2440 mg/kg

DNEL worker, inhalation, long-term, systemic effects: 285 mg/m³

DNEL general population, inhalation, long-term, systemic effects: 85 mg/m³

PNEC freshwater: 0,137mg/l

PNEC marine water: 0,0137mg/l

PNEC water, intermittent releases: 0,055mg/l

PNEC sediment in freshwater: 4,82mg/kg

PNEC sediment in marine water: 0,482mg/kg

PNEC soil: 0,882mg/kg

PNEC Sewage treatment plant: 1084mg/l

8.2. Exposure controls

Appropriate engineering controls:

Ensure adequate ventilation. Apply technical measures to comply with the occupational exposure limits.

Provide eye wash bottles or eye wash stations in compliance with applicable standards.

Take off contaminated clothing and shoes immediately.

Handle in accordance with good industrial hygiene and safety practice.

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Individual protection measures, such as personal protective equipment:



Eye / face protection:

Chemical resistant goggles (EN 166).

Skin protection

Hand protection:

It is recommended to use protective gloves resistant to chemicals (EN374).

Suitable material:

Nitrile rubber (thickness: >0,11mm, penetration time: >480min.).

The selection of suitable gloves does not only depend on the material, but also on the brand and quality resulting from differences in manufacturers. Resistance of the material, the glove can be determined after the tests. The exact time of the destruction of the protective gloves must be determined by the manufacturer.

Other:

Protective clothing.

Respiratory protection:

Use with adequate ventilation.

Thermal hazards:

Not applicable.

Environmental exposure controls:

Not allowed to spread in the environment and run-off into drains and watercourses.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid
Colour	blue
Odour	no data available
Odour threshold	no data available
pH	10-11
Melting point/freezing point	no data available
Initial boiling point and boiling range	no data available
Flash point	no data available
Evaporation rate	no data available
Flammability	no data available
Upper/lower flammability or explosive limits	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Partition coefficient: n-octanol/water	no data available

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Auto-ignition temperature	no data available
Solubility(ies)	no data available
Decomposition temperature	no data available
Viscosity;	no data available
Explosive properties	no data available
Oxidising properties	no data available

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Under normal circumstances the product is stable.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

(a) acute toxicity: Based on the available data, the classification criteria are not met

(b) skin corrosion/irritation: **Causes skin irritation.**

(c) serious eye damage/irritation: **Causes serious eye irritation.**

(d) respiratory or skin sensitisation: Based on the available data, the classification criteria are not met

(e) germ cell mutagenicity: Based on the available data, the classification criteria are not met

(f) carcinogenicity: Based on the available data, the classification criteria are not met

(g) reproductive toxicity: Based on the available data, the classification criteria are not met

(h) STOT-single exposure: Based on the available data, the classification criteria are not met

(i) STOT-repeated exposure: Based on the available data, the classification criteria are not met

(j) aspiration hazard: Based on the available data, the classification criteria are not met

Sodium dodecyl sulphate [CAS No.: 151-21-3]

LD50 (oral, rat): 1288mg/kg

LD50 (dermal, rabbit): >2000mg/kg

SECTION 12: Ecological information

12.1. Toxicity

The product is not classified as dangerous to the environment.

Sodium dodecyl sulphate [CAS No.: 151-21-3]

Aquatic plants EC50: >100mg/l

Aquatic Invertebrata EC50: 1-10mg/l

Micro-organisms EC0: >100mg/l

Fish LC50: 10-100mg/l

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12.2. Persistence and degradability

Sodium dodecyl sulphate [CAS No.: 151-21-3]

Biodegradable.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The product contains no substance meet the criteria for PBT or vPvB.

12.6. Other adverse effects

Not applicable.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal methods:

Waste must be disposed of in accordance with local authority requirements.

Contaminated packaging:

Packaging, that can not be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.

EU REGULATIONS

Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

SECTION 14: Transport information

14.1. UN number

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

14.4. Packing group

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

14.5. Environmental hazards

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

14.6. Special precautions for user

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

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

Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

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

EU REGULATIONS:

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1. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
2. Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
3. 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).
4. Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

15.2. Chemical safety assessment

No chemical safety assessments for the mixture.

- List of substances subject to authorization (REACH; Annex XIV): not applicable
- Candidate list of SVHCs: not applicable
- Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (REACH; Annex XVII): not applicable

SECTION 16: Other information

Abbreviations and acronyms, list of relevant hazard statements used in the safety data sheet:

- H228** – Flammable solid
- H302** – Harmful if swallowed
- H314** – Causes severe skin burns and eye damage
- H315** – Causes skin irritation
- H318** – Causes serious eye damage
- H319** – Causes serious eye irritation
- H332** – Harmful if inhaled
- H335** – May cause respiratory irritation
- H412** – Harmful to aquatic life with long lasting effects
- Flam. Sol. 2** – Flammable solid cat. 2
- Acute Tox. 4** – Acute toxicity cat. 4
- Skin Corr. 1A** Skin corrosion cat. 1A
- Skin Corr. 1B** Skin corrosion cat. 1B
- Skin Irrit. 2** – Skin irritation cat. 2
- Eye Irrit. 2** – Eye irritation cat. 2
- Eye Dam. 1** – Serious eye damage cat. 1
- STOT SE 3** – Specific target organ toxicity - single exposure cat. 3
- Aquatic Chronic 3** – Hazardous to the aquatic environment cat. 3
- DNEL** – derived no-effect level
- PNEC** – predicted no-effect concentration
- LC50** – lethal concentration, 50%
- LD50** – lethal dose, 50%
- EC50** – effective concentration, 50%
- PBT** – Persistent, Bioaccumulative and Toxic
- vPvB** – very Persistent and very Bioaccumulative
- ADR** – International Carriage of Dangerous Goods by Road
- RID** – International Carriage of Dangerous Goods by Rail
- IMDG** – International Maritime Dangerous Goods
- ICAO** – Safe Transport of Dangerous Goods by Air

Method of classification:

- Skin Irrit. 2; H315 – Calculation method
- Eye Irrit. 2; H319 – Calculation method

Training:

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Before working with the product is recommended safety training of employees in connection with the occurrence of workplace chemicals. Documentation should be prepared and employees should be familiarized with the results of risk assessment in the workplace associated with the presence of chemical agents.

Key literature:

Annex to Regulation (EU) 2015/830.

Current legislation (Section 15).

Information Agency for Chemical Substances.

The information in this MSDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this MSDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

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

1.1. Product identifier

Neutral B

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

Identified uses:

laboratory chemicals

Uses advised against:

not specified

1.3. Details of the supplier of the safety data sheet

Producer:

EURx Sp. z o.o.

80-297 Gdańsk, ul. Przyrodników 3

tel. +48 58 524-06-97, +48 58 341-74-23, 8.00 -16.00, working days.

E-mail address: eurx@eurx.com.pl

1.4. Emergency telephone number

112 (Emergency telephone)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

According to Reg. 1272/2008

Acute Tox. 4; H302

Skin Irrit. 2; H315

Eye Irrit. 2; H319

Resp. Sens. 1; H334

Skin Sens. 1; H317

Human health dangers:

Harmful if swallowed. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes skin irritation.

Causes serious eye irritation. May cause an allergic skin reaction.

Environmental hazards:

None.

Physic-chemical hazards:

None.

2.2. Label elements

Contains:

Guanidinium chloride (CAS No.: 50-01-1)

Ethylenediammonium dichloride (CAS No.: 333-18-6)

Pictograms:



Signal Word: Danger

Hazard Statement (H):

H302 – Harmful if swallowed

H315 – Causes skin irritation

H317 – May cause an allergic skin reaction.

H319 – Causes serious eye irritation

H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary Statement (P):

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

P284 – [In case of inadequate ventilation] wear respiratory protection.

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P301+P312 – IF SWALLOWED: Call a POISON CENTER/ doctor/... if you feel unwell.

P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P333+P313 – If skin irritation or rash occurs: Get medical advice/attention

2.3. Other hazards

The product contains no substance meet the criteria for PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Mixtures

Hazardous components:

Product identifier	Contains [%]	Classification CLP	
		Hazard Class and Category Code(s)	Hazard Statement Code(s)
Guanidinium chloride CAS No.: 50-01-1 EINECS No.: 200-002-3 Index No.: 607-148-00-0 REACH No.: 01-2119977063-35-XXXX	<30	Acute Tox. 4 Skin Irrit. 2 Eye Irrit. 2	H302 H332 H315 H319
Acetic acid* ⁽¹⁾ CAS No.: 64-19-7 EINECS No.: 200-580-7 Index No.: 607-002-00-6 REACH No.: 01-2119475328-30	<20	Flam. Liq. 3 Skin Corr. 1A	H226 H314
Ethylenediammonium dichloride CAS No.: 333-18-6 EINECS No.: 206-369-6 Index No.: - REACH No.: -	<1,5	Acute Tox. 4 Skin Irrit. 2 Eye Irrit. 2 Resp. Sens. 1 Skin Sens. 1 STOT SE 3	H302 H315 H319 H334 H317 H335

For full text of H-statements: see SECTION 16

*Substance for which workplace exposure limits are available

⁽¹⁾ Specific Conc. Limits:

Eye Irrit. 2; 10 % ≤ C < 25 %

Skin Irrit. 2; 10 % ≤ C < 25 %

Skin Corr.1B; 25 % ≤ C < 90 %

Skin Corr. 1A; C ≥ 90 %

SECTION 4: First aid measures

4.1. Description of first aid measures

Skin contact

Remove contaminated clothing. Wash off with plenty of water. Seek medical attention.

Eye contact

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

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Inhalation

Move to fresh air. Oxygen or artificial respiration if needed. Call a physician immediately.

Ingestion

Do NOT induce vomiting. Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Harmful if swallowed.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Causes skin irritation and allergic skin reaction.

Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: foam, dry powder extinguishers, CO₂, water spray. Use appropriate extinguishing method for conditions.

Unsuitable extinguishing media: Do not use a direct water jet.

5.2. Special hazards arising from the substance or mixture

Development of hazardous combustion gases or vapours possible in the event of fire.

Hazardous combustion products: Carbon oxides, ammonia, hydrogen chloride, nitrogen oxides (NO_x)

5.3. Advice for firefighters

Containers in fire area cooled with water spray, if it is possible to remove the danger zone.

Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Do not allow fire-fighting water run-off into surface water, groundwater and sewer.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Notify the appropriate service. Keep unnecessary people away; isolate hazard area.

For emergency responders: Ventilate the area. Wear suitable protective clothing.

6.2. Environmental Precautions

Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Absorb with inert, absorbent material (such as sand, earth, vermiculite, diatomaceous earth, etc.). Place the contaminated material in properly labeled containers for disposal in accordance with applicable regulations.

6.4. Reference to other sections

Disposal considerations – see section 13.

Personal precautions – see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use only in well ventilated area. Avoid breathing vapors. Avoid contact with eyes. Avoid contact with skin.

Handle in accordance with good industrial hygiene and safety practice: Do not eat, drink and smoke at work, wash your hands after use, remove contaminated clothing and protective equipment before entering places for meals.

7.2. Conditions for safe storage, including any incompatibilities

Store in original container. Keep in a well-ventilated and dry place. Keep in properly labelled containers. Keep container closed.

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7.3. Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits:

Acetic acid [CAS No.: 64-19-7]

	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
Australia	10	25	15	37
Austria	10	25	20	50
Belgium	10	25	15	38
Canada - Ontario	10		15	
Canada - Québec	10	25	15	37
Denmark	10	25	20	50
European Union	10	25	20 (1)	50 (1)
Finland	5	13	10 (1)	25 (1)
France			10	25
Germany (AGS)	10	25	20 (1)	50 (1)
Germany (DFG)	10	25	20	50
Hungary		25		25
Ireland	10	25	15 (1)	37 (1)
Italy	10	25		
Japan - JSOH	10	25		
Latvia	10	25		
New Zealand	10	25	15	37
People's Republic of China		10		20 (1)
Poland		15		30
Romania	10	25		
Singapore	10	25	15	37
South Korea	10	25	15	37
Spain	10	25	15	37
Sweden	5	13	10 (1)	25 (1)
Switzerland	10	25	20	50
Turkey	10	25		
USA - NIOSH	10	25	15 (1)	37 (1)
USA - OSHA	10	25		
United Kingdom	[10]	[25]	[15]	[37]
	Remarks			
Austria	Indicative Occupational Exposure Limit Values, proposal [5] ~ (for references see bibliography)			
European Union	Bold-type: Indicative Occupational Exposure Limit Values and Limit Values for Occupational Exposure Binding Occupational Exposure Limit Value - BOELV ~ (1) 15 minutes average value (for references see bibliography)			
Finland	(1) 15 minutes average value			
Germany (AGS)	(1) 15 Minutes average value			
Germany (DFG)	STV 15 minutes average value			
Ireland	(1) 15 minutes reference period			

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People's Republic of China	(1) 15 minutes average value
Sweden	(1) 15 minutes average value
USA - NIOSH	(1) 15 minutes average value
United Kingdom	The UK Advisory Committee on Toxic Substances has expressed concern that, for the OELs shown in parentheses, health may not be adequately protected because of doubts that the limit was not soundly-based. These OELs were included in the published UK 2002 list and its 2003 supplement, but were omitted from editions published from 2005 onwards.

Acetic acid [CAS No.: 64-19-7]

DNEL Worker, inhalation, long-term: 500mg/m³

DNEL Worker, inhalation, acute: 25mg/m³

PNEC freshwater: 3,058mg/l

PNEC marine water: 0,3058mg/l

PNEC sediment freshwater: 11,36mg/kg

PNEC sediment marine water: 1,136mg/kg

PNEC water, intermittent releases: 30,58mg/dm³

PNEC soil: 0,478mg/kg

PNEC Sewage treatment plant: 85mg/l

8.2. Exposure controls

Appropriate engineering controls:

Ensure adequate ventilation.

Handle in accordance with good industrial hygiene and safety practice.

Individual protection measures, such as personal protective equipment:



Eye / face protection:

Chemical resistant goggles must be worn (EN 166).

Skin protection

Hand protection:

It is recommended to use protective gloves resistant to chemicals (EN374).

Suitable material:

Nitrile rubber, butyl rubber (thickness: >0,4mm, penetration time: >480min.).

The selection of suitable gloves does not only depend on the material, but also on the brand and quality resulting from differences in manufacturers. Resistance of the material, the glove can be determined after the tests. The exact time of the destruction of the protective gloves must be determined by the manufacturer.

Other:

Protective clothing.

Respiratory protection:

Use with adequate ventilation. In case of insufficient local exhaust ventilation: respiratory air fed breathing apparatus if there is a risk of exposure to high vapour concentrations. If using a half mask: organic vapour cartridge AX type.

Thermal hazards:

Not applicable.

Environmental exposure controls:

Not allowed to spread in the environment and run-off into drains and watercourses.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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Appearance	liquid
Colour	colorless
Odour	acetic
Odour threshold	no data available
pH	4.5
Melting point/freezing point	no data available
Initial boiling point and boiling range	no data available
Flash point	no data available
Evaporation rate	no data available
Flammability	no data available
Upper/lower flammability or explosive limits	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Solubility(ies)	no data available
Decomposition temperature	no data available
Viscosity;	no data available
Explosive properties	no data available
Oxidising properties	no data available

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Under normal circumstances the product is stable.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Strong bases, strong acids and oxidizing agents.

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10.6. Hazardous decomposition products

Under fire conditions: Carbon oxides, ammonia, hydrogen chloride, nitrogen oxides (NO_x)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

(a) acute toxicity: **Harmful if swallowed.**

ATE mix oral: >1500mg/kg

ATE mix inhalation (vapours): >36mg/l

ATE mix inhalation (dust/mist): >5mg/l

(b) skin corrosion/irritation: **Causes skin irritation.**

(c) serious eye damage/irritation: **Causes serious eye irritation.**

(d) respiratory or skin sensitisation: **May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.**

(e) germ cell mutagenicity: Based on the available data, the classification criteria are not met

(f) carcinogenicity: Based on the available data, the classification criteria are not met

(g) reproductive toxicity: Based on the available data, the classification criteria are not met

(h) STOT-single exposure: Based on the available data, the classification criteria are not met

(i) STOT-repeated exposure: Based on the available data, the classification criteria are not met

(j) aspiration hazard: Based on the available data, the classification criteria are not met

Guanidinium chloride [CAS No.: 50-01-1]

LD50 oral, rat: 475mg/kg

LD50 oral, rat: 1120mg/kg

LD50 oral, mouse: 571mg/kg

LD50 dermal, rabbit: >5000mg/kg

LC50 inhalation, rat –male: 3,181mg/l, 4h

Ethylenediammonium dichloride [CAS No.: 333-18-6]

LD50 oral, mouse: 1620mg/kg

LD50 dermal, rabbit: >6400mg/kg

SECTION 12: Ecological information

12.1. Toxicity

The product is not classified as dangerous to the environment.

Guanidinium chloride [CAS No.: 50-01-1]

Fish (Leuciscus idus) LC50: 1759mg/l

Acetic acid [CAS No.: 64-19-7]

Alage EC50: >300,82mg/dm³

12.2. Persistence and degradability

Acetic acid [CAS No.: 64-19-7]

Biodegradable.

K_{sw} = 0,047 d⁻¹.

K_{soil} = 0,023 d⁻¹.

K_{air} = 0,6·10¹² cm³mol⁻¹s⁻¹.

12.3. Bioaccumulative potential

Acetic acid [CAS No.: 64-19-7]

BCF = 3,16.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The product contains no substance meet the criteria for PBT or vPvB.

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12.6. Other adverse effects

Not applicable.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal methods:

Waste must be disposed of in accordance with local authority requirements.

Contaminated packaging:

Packaging, that cannot be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.

EU REGULATIONS

Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

SECTION 14: Transport information

14.1. UN number

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

14.4. Packing group

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

14.5. Environmental hazards

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

14.6. Special precautions for user

ADR/RID/IMDG/ICAO: Not classified as dangerous in the meaning of transport regulations.

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

Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

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

EU REGULATIONS:

1. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
2. Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
3. 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).

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4. Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

15.2. Chemical safety assessment

No chemical safety assessments for the mixture.

- List of substances subject to authorization (REACH; Annex XIV): not applicable
- Candidate list of SVHCs: not applicable
- Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (REACH; Annex XVII): not applicable

SECTION 16: Other information

Abbreviations and acronyms, list of relevant hazard statements used in the safety data sheet:

- H226** – Flammable liquid and vapour.
- H302** – Harmful if swallowed
- H314** – Causes severe skin burns and eye damage
- H315** – Causes skin irritation
- H317** – May cause an allergic skin reaction.
- H319** – Causes serious eye irritation
- H332** – Harmful if inhaled
- H334** – May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H335** – May cause respiratory irritation
- Flam. Liq. 3** – Flammable liquid cat. 3
- Acute Tox. 4** – Acute toxicity cat. 4
- Skin Corr. 1A** – Skin corrosion cat. 1A
- Skin Irrit. 2** – Skin irritation cat. 2
- Eye Irrit. 2** – Eye irritation cat. 2
- Skin Sens. 1** – Skin sensitization cat. 1
- Resp. Sens. 1** – Respiratory sensitization cat. 1
- STOT SE 3** – Specific target organ toxicity - single exposure cat. 3
- DNEL** – derived no-effect level
- PNEC** – predicted no-effect concentration
- ATE** – Acute Toxicity Estimate
- LC50** – lethal concentration, 50%
- LD50** – lethal dose, 50%
- EC50** – effective concentration, 50%
- BCF** – bioconcentration factor
- PBT** – Persistent, Bioaccumulative and Toxic
- vPvB** – very Persistent and very Bioaccumulative
- ADR** – International Carriage of Dangerous Goods by Road
- RID** – International Carriage of Dangerous Goods by Rail
- IMDG** – International Maritime Dangerous Goods
- ICAO** – Safe Transport of Dangerous Goods by Air

Method of classification:

- Acute Tox. 4; H302 – Calculation method
- Skin Irrit. 2; H315 – Calculation method
- Skin Sens. 1; H317 – Calculation method
- Eye Irrit. 2; H319 – Calculation method
- Resp. Sens. 1; H334 – Calculation method

Training:

Before working with the product is recommended safety training of employees in connection with the occurrence of workplace chemicals. Documentation should be prepared and employees should be familiarized with the results of risk assessment in the workplace associated with the presence of chemical agents.

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Key literature:

Annex to Regulation (EU) 2015/830.
 Current legislation (Section 15).
 Information Agency for Chemical Substances.

The information in this MSDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this MSDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

DOMINIQUE DUTSCHER GAS

SAFETY DATA SHEET

according to: 1907/2006, 2015/830

Wash UX1

Version EN: 2.0

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

1.1. Product identifier

Wash UX1

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

Identified uses:

laboratory chemicals

Uses advised against:

not specified

1.3. Details of the supplier of the safety data sheet

Producer:

EURx Sp. z o.o.

80-297 Gdańsk, ul. Przyrodników 3

tel. +48 58 524-06-97, +48 58 341-74-23, 8.00 -16.00, working days.

E-mail address: eurx@eurx.com.pl

1.4. Emergency telephone number

112 (Emergency telephone)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

According to Reg. 1272/2008

Flam. Liq. 3; H226

Acute Tox. 4; H302

Acute Tox. 4; H332

Skin Irrit. 2; H315

Eye Irrit. 2; H319

Human health dangers:

Harmful if swallowed or if inhaled. Causes skin irritation. Causes serious eye irritation.

Environmental hazards:

None.

Physic-chemical hazards:

Flammable liquid and vapour.

2.2. Label elements

Contains: Guanidinium chloride (CAS No.: 50-01-1)

Pictograms:



Signal Word: Warning

Hazard Statement (H):

H226 – Flammable liquid and vapour.

H302+H332 – Harmful if swallowed or if inhaled

H315 – Causes skin irritation

H319 – Causes serious eye irritation

Precautionary Statement (P):

P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

P301+P312 – IF SWALLOWED: Call a POISON CENTER/ doctor/... if you feel unwell.

P302+P352 – IF ON SKIN: Wash with plenty of water

P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

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2.3. Other hazards

The product contains no substance meet the criteria for PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Mixtures

Hazardous components:

Product identifier	Contains [%]	Classification CLP	
		Hazard Class and Category Code(s)	Hazard Statement Code(s)
Guanidinium chloride CAS No.: 50-01-1 EINECS No.: 200-002-3 Index No.: 607-148-00-0 REACH No.: 01-2119977063-35-XXXX	<40	Acute Tox. 4 Skin Irrit. 2 Eye Irrit. 2	H302 H332 H315 H319
Ethanol* (1) CAS No.: 64-17-5 EINECS No.: 200-578-6 Index No.: 603-002-00-5 REACH No.: 01-2119457610-43-XXXX	≤40	Flam. Liq. 2 Eye Irrit. 2	H225 H319
Disodium dihydrogen ethylenediaminetetraacetate CAS No.: 6381-92-6 EINECS No.: 205-358-3 Index No.: - REACH No.: 01-2119486775-20-XXXX	<0,5	Acute Tox. 4 STOT RE 2	H332 H373

For full text of H-statements: see SECTION 16

*Substance for which workplace exposure limits are available

(1) Specific Conc. Limits:

Eye Irrit. 2; C ≥50%

SECTION 4: First aid measures

4.1. Description of first aid measures

Skin contact

Remove contaminated clothing. Wash off with plenty of water. Seek medical attention.

Eye contact

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

Inhalation

Keep patient calm, remove to fresh air, seek medical attention.

Ingestion

Do NOT induce vomiting. Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Harmful if swallowed or if inhaled.

Causes skin irritation.

Causes serious eye irritation.

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4.3. Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: foam, dry powder extinguishers, CO₂, water spray. Use appropriate extinguishing method for conditions.

Unsuitable extinguishing media: Do not use a direct water jet.

5.2. Special hazards arising from the substance or mixture

Flammable liquid and vapour. Development of hazardous combustion gases or vapours possible in the event of fire. Hazardous combustion products: Carbon oxides, ammonia, hydrogen chloride, nitrogen oxides (NO_x)

5.3. Advice for firefighters

Containers in fire area cooled with water spray, if it is possible to remove the danger zone.

Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Do not allow fire-fighting water run-off into surface water, groundwater and sewer.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Notify the appropriate service. Keep unnecessary people away; isolate hazard area.

For emergency responders: Ventilate the area. Eliminate all sources of ignition. Wear suitable protective clothing.

6.2. Environmental Precautions

Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Absorb with inert, absorbent material (such as sand, earth, vermiculite, diatomaceous earth, etc.). Placed the contaminated material in properly labeled containers for disposal in accordance with applicable regulations.

6.4. Reference to other sections

Disposal considerations – see section 13.

Personal precautions – see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use only in well ventilated area. Avoid breathing vapors. Avoid contact with eyes. Avoid contact with skin.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Handle in accordance with good industrial hygiene and safety practice: Do not eat, drink and smoke at work, wash your hands after use, remove contaminated clothing and protective equipment before entering places for meals.

7.2. Conditions for safe storage, including any incompatibilities

Store in original container. Keep in a well-ventilated and dry place. Keep in properly labelled containers. Keep container closed. Store away from sources of heat or ignition. Do not store together with strong bases, strong acids and oxidizing agents.

7.3. Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits:

Ethanol [CAS No.: 64-17-5]

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	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
Australia	1000	1880		
Austria	1000	1900	2000	3800
Belgium	1000	1907		
Canada - Ontario			1000	
Canada - Québec	1000	1880		
Denmark	1000	1900	2000	3800
Finland	1000	1900	1300 (1)	2500 (1)
France	1000	1900	5000	9500
Germany (AGS)	500	960	1000 (1)	1920 (1)
Germany (DFG)	200	380	800 (1)	1520 (1)
Hungary		1900		7600
Ireland			1000 (1)	
Latvia		1000		
New Zealand	1000	1880		
Poland		1900		
Romania	1000	1900	5000 (1)	9500 (1)
Singapore	1000	1880		
South Korea	1000	1900		
Spain			1000	1910
Sweden	500	1000	1000 (1)	1900 (1)
Switzerland	500	960	1000	1920
The Netherlands		260		1900
USA - NIOSH	1000	1900		
USA - OSHA	1000	1900		
United Kingdom	1000	1920		
	Remarks			
Finland	(1) 15 minutes average value			
Germany (AGS)	(1) 15 minutes average value			
Germany (DFG)	(1) 15 minutes average value			
Ireland	(1) 15 minutes reference period			
Romania	(1) 15 minutes average value			
Sweden	(1) 15 minutes average value			

Disodium dihydrogen ethylenediaminetetraacetate [CAS No.: 6381-92-6]

DNEL general population, oral, long-term, systemic effects: 25 mg/kg

DNEL worker, inhalation, acute, local effects: 3 mg/m³

DNEL worker, inhalation, long-term, local effects: 1,5 mg/m³

DNEL general population, inhalation, acute, local effects: 1,2 mg/m³

DNEL general population, inhalation, long-term, local effects: 0,6 mg/m³

PNEC freshwater: 2,2 mg/l

PNEC marine water: 0,22 mg/l

PNEC water, intermittent releases: 1,2 mg/l

PNEC soil: 0,72mg/kg

PNEC Sewage treatment plant: 43 mg/l

8.2. Exposure controls

Appropriate engineering controls:

Ensure adequate ventilation. Apply technical measures to comply with the occupational exposure limits.

Handle in accordance with good industrial hygiene and safety practice.

Individual protection measures, such as personal protective equipment:

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Eye / face protection:

Chemical resistant goggles must be worn (EN 166).

Skin protection

Hand protection:

It is recommended to use protective gloves resistant to chemicals (EN374).

Suitable material:

Nitrile rubber, butyl rubber (thickness: >0,4mm, penetration time: >480min.).

The selection of suitable gloves does not only depend on the material, but also on the brand and quality resulting from differences in manufacturers. Resistance of the material, the glove can be determined after the tests. The exact time of the destruction of the protective gloves must be determined by the manufacturer.

Other:

Protective clothing.

Respiratory protection:

Use with adequate ventilation. In case of insufficient local exhaust ventilation and/or handling with open equipment: Respiratory air fed breathing apparatus if there is a risk of exposure to high vapour concentrations. If using a half mask: organic vapour cartridge AX type.

Thermal hazards:

Not applicable.

Environmental exposure controls:

Not allowed to spread in the environment and run-off into drains and watercourses.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid
Colour	colorless
Odour	no data available
Odour threshold	no data available
pH	6.5
Melting point/freezing point	no data available
Initial boiling point and boiling range	no data available
Flash point	≥26°C
Evaporation rate	no data available
Flammability	no data available
Upper/lower flammability or explosive limits	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available

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Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Solubility(ies)	no data available
Decomposition temperature	no data available
Viscosity;	no data available
Explosive properties	no data available
Oxidising properties	no data available

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Under normal circumstances the product is stable.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

10.5. Incompatible materials

strong bases, strong acids and oxidizing agents.

10.6. Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

(a) acute toxicity: **Harmful if swallowed or if inhaled.**

ATE mix oral: >1250mg/kg

ATE mix inhalation (vapours): >27mg/l

ATE mix inhalation (dust/mist): >3,7mg/l

(b) skin corrosion/irritation: **Causes skin irritation.**

(c) serious eye damage/irritation: **Causes serious eye irritation.**

(d) respiratory or skin sensitisation: Based on the available data, the classification criteria are not met

(e) germ cell mutagenicity: Based on the available data, the classification criteria are not met

(f) carcinogenicity: Based on the available data, the classification criteria are not met

(g) reproductive toxicity: Based on the available data, the classification criteria are not met

(h) STOT-single exposure: Based on the available data, the classification criteria are not met

(i) STOT-repeated exposure: Based on the available data, the classification criteria are not met

(j) aspiration hazard: Based on the available data, the classification criteria are not met

Guanidinium chloride [CAS No.: 50-01-1]

LD50 oral, rat: 475mg/kg

LD50 oral, rat: 1120mg/kg

LD50 oral, mouse: 571mg/kg

LD50 dermal, rabbit: >5000mg/kg

LC50 inhalation, rat –male: 3,181mg/l, 4h

Etanol [CAS: 64-17-5]

LD50 oral, rat: 7g/kg

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LC50 inhalation, rat (vapour): 124700mg/m³, 4h

Disodium dihydrogen ethylenediaminetetraacetate [CAS No.: 6381-92-6]

LD50 oral, rat: 2800mg/kg

SECTION 12: Ecological information

12.1. Toxicity

The product is not classified as dangerous to the environment.

Guanidinium chloride [CAS No.: 50-01-1]

Fish (Leuciscus idus) LC50: 1759mg/l

Etanol [CAS: 64-17-5]

Alage (Ulva pertusa) EC50 17,921 mg/l, 96h

Daphnia magna EC50 2000 µg/l, 48h

Artemia franciscana LC50 25500 µg/l, 48h

Fish (Oncorhynchus mykiss) LC50 42000µg/l, 96h

Daphnia magna NOEC: 100µl/l, 21d

Fish (Gambusia holbrooki) NOEC: 0,375µl/l, 12week

Disodium dihydrogen ethylenediaminetetraacetate [CAS No.: 6381-92-6]

EC50/72h: >100 mg/l (Aquatic plants)

EC50/48h: >100 mg/l (Daphnia magna)

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

Etanol [CAS: 64-17-5]

Log Po/w: -0,35 – low potential

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The product contains no substance meet the criteria for PBT or vPvB.

12.6. Other adverse effects

Not applicable.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal methods:

Waste must be disposed of in accordance with local authority requirements.

Contaminated packaging:

Packaging, that can not be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.

EU REGULATIONS

Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

SECTION 14: Transport information

14.1. UN number

ADR/RID/IMDG/ICAO: 1993

14.2. UN proper shipping name

ADR/RID/IMDG: FLAMMABLE LIQUID, N.O.S. (Ethanol)

ICAO: Flammable liquid, n.o.s. (ethanol)

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14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO: 3

14.4. Packing group

ADR/RID/IMDG/ICAO: III

14.5. Environmental hazards

ADR/RID/IMDG/ICAO: no

14.6. Special precautions for user

ADR/RID/IMDG/ICAO:

Labels: 3

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

EU REGULATIONS:

1. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
2. Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
3. 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).
4. Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

15.2. Chemical safety assessment

No chemical safety assessments for the mixture.

- List of substances subject to authorization (REACH; Annex XIV): not applicable
- Candidate list of SVHCs: not applicable
- Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (REACH; Annex XVII): not applicable

SECTION 16: Other information

Abbreviations and acronyms, list of relevant hazard statements used in the safety data sheet:

H225 – Highly flammable liquid and vapour

H226 – Flammable liquid and vapour.

H302 – Harmful if swallowed

H332 – Harmful if inhaled

H315 – Causes skin irritation

H319 – Causes serious eye irritation

H373 – May cause damage to organs through prolonged or repeated exposure

Flam. Liq. 2 – Flammable liquid cat. 2

Flam. Liq. 3 – Flammable liquid cat. 3

Acute Tox. 4 – Acute toxicity cat. 4

Skin Irrit. 2 – Skin irritation cat. 2

Eye Irrit. 2 – Eye irritation cat. 2

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STOT RE 2 – Specific target organ toxicity - repeated exposure cat. 2

DNEL – derived no-effect level

PNEC – predicted no-effect concentration

ATE – Acute Toxicity Estimate

LC50 – lethal concentration, 50%

LD50 – lethal dose, 50%

EC50 – effective concentration, 50%

NOEC – no observed effects concentration

PBT – Persistent, Bioaccumulative and Toxic

vPvB – very Persistent and very Bioaccumulative

ADR – International Carriage of Dangerous Goods by Road

RID – International Carriage of Dangerous Goods by Rail

IMDG – International Maritime Dangerous Goods

ICAO – Safe Transport of Dangerous Goods by Air

Method of classification:

Flam. Liq. 3; H226 – Based on flash point

Acute Tox. 4; H302 – Calculation method

Acute Tox. 4; H332 – Calculation method

Skin Irrit. 2; H315 – Calculation method

Eye Irrit. 2; H319 – Calculation method

Training:

Before working with the product is recommended safety training of employees in connection with the occurrence of workplace chemicals. Documentation should be prepared and employees should be familiarized with the results of risk assessment in the workplace associated with the presence of chemical agents.

Key literature:

Annex to Regulation (EU) 2015/830.

Current legislation (Section 15).

Information Agency for Chemical Substances.

The information in this MSDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this MSDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

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

1.1. Product identifier

Wash UX2

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

Identified uses:

laboratory chemicals

Uses advised against:

not specified

1.3. Details of the supplier of the safety data sheet

Producer:

EURx Sp. z o.o.

80-297 Gdańsk, ul. Przyrodników 3

tel. +48 58 524-06-97, +48 58 341-74-23, 8.00 -16.00, working days.

E-mail address: eurx@eurx.com.pl

1.4. Emergency telephone number

112 (Emergency telephone)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

According to Reg. 1272/2008

Flam. Liq. 2; H225

Eye Irrit. 2; H319

Human health dangers:

Causes serious eye irritation.

Environmental hazards:

None.

Physic-chemical hazards:

Highly flammable liquid and vapour.

2.2. Label elements

Pictograms:



Signal Word: Danger

Hazard Statement (H):

H225 – Highly flammable liquid and vapour.

H319 – Causes serious eye irritation

Precautionary Statement (P):

P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

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

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

P337+P313 – If eye irritation persists: Get medical advice/ attention.

2.3. Other hazards

The product contains no substance meet the criteria for PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.1. Substances

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Not applicable.

3.2. Mixtures

Hazardous components:

Product identifier	Contains [%]	Classification CLP	
		Hazard Class and Category Code(s)	Hazard Statement Code(s)
Ethanol* (1) CAS No.: 64-17-5 EINECS No.: 200-578-6 Index No.: 603-002-00-5 REACH No.: 01-2119457610-43-XXXX	<90	Flam. Liq. 2 Eye Irrit. 2	H225 H319

For full text of H-statements: see SECTION 16

*Substance for which workplace exposure limits are available

(1) Specific Conc. Limits:

Eye Irrit. 2; C ≥50%

SECTION 4: First aid measures

4.1. Description of first aid measures

Skin contact

Remove contaminated clothing. Wash off with plenty of water. Seek medical attention.

Eye contact

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

Inhalation

Keep patient calm, remove to fresh air, seek medical attention.

Ingestion

Do NOT induce vomiting. Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

4.2. Most important symptoms and effects, both acute and delayed.

Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: foam, dry powder extinguishers, CO₂, water spray. Use appropriate extinguishing method for conditions.

Unsuitable extinguishing media: Do not use a direct water jet.

5.2. Special hazards arising from the substance or mixture

Flammable liquid and vapour. Development of hazardous combustion gases or vapours possible in the event of fire. Hazardous combustion products: Carbon oxides, ammonia, hydrogen chloride, nitrogen oxides (NO_x)

5.3. Advice for firefighters

Containers in fire area cooled with water spray, if it is possible to remove the danger zone.

Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Do not allow fire-fighting water run-off into surface water, groundwater and sewer.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Notify the appropriate service. Keep unnecessary people away; isolate hazard area.

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For emergency responders: Ventilate the area. Eliminate all sources of ignition. Wear suitable protective clothing.

6.2. Environmental Precautions

Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Absorb with inert, absorbent material (such as sand, earth, vermiculite, diatomaceous earth, etc.). Place the contaminated material in properly labeled containers for disposal in accordance with applicable regulations.

6.4. Reference to other sections

Disposal considerations – see section 13.

Personal precautions – see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use only in well ventilated area. Avoid breathing vapors. Avoid contact with eyes. Avoid contact with skin.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Handle in accordance with good industrial hygiene and safety practice: Do not eat, drink and smoke at work, wash your hands after use, remove contaminated clothing and protective equipment before entering places for meals.

7.2. Conditions for safe storage, including any incompatibilities

Store in original container. Keep in a well-ventilated and dry place. Keep in properly labelled containers. Keep container closed. Store away from sources of heat or ignition. Do not store together with strong bases, strong acids and oxidizing agents.

7.3. Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits:

Ethanol [CAS No.: 64-17-5]

	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
Australia	1000	1880		
Austria	1000	1900	2000	3800
Belgium	1000	1907		
Canada - Ontario			1000	
Canada - Québec	1000	1880		
Denmark	1000	1900	2000	3800
Finland	1000	1900	1300 (1)	2500 (1)
France	1000	1900	5000	9500
Germany (AGS)	500	960	1000 (1)	1920 (1)
Germany (DFG)	200	380	800 (1)	1520 (1)
Hungary		1900		7600
Ireland			1000 (1)	
Latvia		1000		
New Zealand	1000	1880		
Poland		1900		
Romania	1000	1900	5000 (1)	9500 (1)
Singapore	1000	1880		
South Korea	1000	1900		

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Spain			1000	1910
Sweden	500	1000	1000 (1)	1900 (1)
Switzerland	500	960	1000	1920
The Netherlands		260		1900
USA - NIOSH	1000	1900		
USA - OSHA	1000	1900		
United Kingdom	1000	1920		
	Remarks			
Finland	(1) 15 minutes average value			
Germany (AGS)	(1) 15 minutes average value			
Germany (DFG)	(1) 15 minutes average value			
Ireland	(1) 15 minutes reference period			
Romania	(1) 15 minutes average value			
Sweden	(1) 15 minutes average value			

8.2. Exposure controls

Appropriate engineering controls:

Ensure adequate ventilation. Apply technical measures to comply with the occupational exposure limits. Handle in accordance with good industrial hygiene and safety practice.

Individual protection measures, such as personal protective equipment:



Eye / face protection:

Chemical resistant goggles must be worn (EN 166).

Skin protection

Hand protection:

It is recommended to use protective gloves resistant to chemicals (EN374).

Suitable material:

Nitrile rubber, butyl rubber (thickness: >0,4mm, penetration time: >480min.).

The selection of suitable gloves does not only depend on the material, but also on the brand and quality resulting from differences in manufacturers. Resistance of the material, the glove can be determined after the tests. The exact time of the destruction of the protective gloves must be determined by the manufacturer.

Other:

Protective clothing.

Respiratory protection:

Use with adequate ventilation. In case of insufficient local exhaust ventilation and/or handling with open equipment: Respiratory air fed breathing apparatus if there is a risk of exposure to high vapour concentrations. If using a half mask: organic vapour cartridge AX type.

Thermal hazards:

Not applicable.

Environmental exposure controls:

Not allowed to spread in the environment and run-off into drains and watercourses.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid
Colour	colorless

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Odour	alcoholic
Odour threshold	no data available
pH	7.5
Melting point/freezing point	no data available
Initial boiling point and boiling range	no data available
Flash point	<23°C
Evaporation rate	no data available
Flammability	no data available
Upper/lower flammability or explosive limits	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Solubility(ies)	no data available
Decomposition temperature	no data available
Viscosity;	no data available
Explosive properties	no data available
Oxidising properties	no data available

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Under normal circumstances the product is stable.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

10.5. Incompatible materials

strong bases, strong acids and oxidizing agents.

10.6. Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

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11.1. Information on toxicological effects

- (a) acute toxicity: Based on the available data, the classification criteria are not met
- (b) skin corrosion/irritation: Based on the available data, the classification criteria are not met
- (c) serious eye damage/irritation: **Causes serious eye irritation.**
- (d) respiratory or skin sensitisation: Based on the available data, the classification criteria are not met
- (e) germ cell mutagenicity: Based on the available data, the classification criteria are not met
- (f) carcinogenicity: Based on the available data, the classification criteria are not met
- (g) reproductive toxicity: Based on the available data, the classification criteria are not met
- (h) STOT-single exposure: Based on the available data, the classification criteria are not met
- (i) STOT-repeated exposure: Based on the available data, the classification criteria are not met
- (j) aspiration hazard: Based on the available data, the classification criteria are not met

Ethanol [CAS: 64-17-5]

LD50 oral, rat: 7g/kg

LC50 inhalation, rat (vapour): 124700mg/m³, 4h

SECTION 12: Ecological information

12.1. Toxicity

The product is not classified as dangerous to the environment.

Ethanol [CAS: 64-17-5]

Alage (Ulva pertusa) EC50 17,921 mg/l, 96h

Daphnia magna EC50 2000 µg/l, 48h

Artemia franciscana LC50 25500 µg/l, 48h

Fish (Oncorhynchus mykiss) LC50 42000µg/l, 96h

Daphnia magna NOEC: 100µl/l, 21d

Fish (Gambusia holbrooki) NOEC: 0,375µl/l, 12week

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

Ethanol [CAS: 64-17-5]

Log Po/w: -0,35 – low potential

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The product contains no substance meet the criteria for PBT or vPvB.

12.6. Other adverse effects

Not applicable.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal methods:

Waste must be disposed of in accordance with local authority requirements.

Contaminated packaging:

Packaging, that can not be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.

EU REGULATIONS

Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

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SECTION 14: Transport information

14.1. UN number

ADR/RID/IMDG/ICAO: 1993

14.2. UN proper shipping name

ADR/RID/IMDG: FLAMMABLE LIQUID, N.O.S. (Ethanol)

ICAO: Flammable liquid, n.o.s. (ethanol)

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO: 3

14.4. Packing group

ADR/RID/IMDG/ICAO: III

14.5. Environmental hazards

ADR/RID/IMDG/ICAO: no

14.6. Special precautions for user

ADR/RID/IMDG/ICAO:

Labels: 3

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

EU REGULATIONS:

1. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
2. Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
3. 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).
4. Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

15.2. Chemical safety assessment

No chemical safety assessments for the mixture.

- List of substances subject to authorization (REACH; Annex XIV): not applicable
- Candidate list of SVHCs: not applicable
- Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (REACH; Annex XVII): not applicable

SECTION 16: Other information

Abbreviations and acronyms, list of relevant hazard statements used in the safety data sheet:

H225 – Highly flammable liquid and vapour

H319 – Causes serious eye irritation

Flam. Liq. 2 – Flammable liquid cat. 2

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Eye Irrit. 2 – Eye irritation cat. 2
DNEL – derived no-effect level
PNEC – predicted no-effect concentration
ATE – Acute Toxicity Estimate
LC50 – lethal concentration, 50%
LD50 – lethal dose, 50%
EC50 – effective concentration, 50%
NOEC – no observed effects concentration
PBT – Persistent, Bioaccumulative and Toxic
vPvB – very Persistent and very Bioaccumulative
ADR – International Carriage of Dangerous Goods by Road
RID – International Carriage of Dangerous Goods by Rail
IMDG – International Maritime Dangerous Goods
ICAO – Safe Transport of Dangerous Goods by Air

Method of classification:

Flam. Liq. 2; H225 – Based on flash point
 Eye Irrit. 2; H319 – Calculation method

Training:

Before working with the product is recommended safety training of employees in connection with the occurrence of workplace chemicals. Documentation should be prepared and employees should be familiarized with the results of risk assessment in the workplace associated with the presence of chemical agents.

Key literature:

Annex to Regulation (EU) 2015/830.
 Current legislation (Section 15).
 Information Agency for Chemical Substances.

The information in this MSDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this MSDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.