

## SAFETY DATA SHEET

Safety Data Sheet according to (EC) No. 1907/2006.

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

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**1.1. Product identifier:****Lysis 2**

P/N: 910-0011

UFI: Not relevant

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

Aqueous preparation for research and analysis. Restricted to professional users.

**1.3. Details of the supplier of the safety data sheet:**

ChemoMetec A/S

Gydevang 43

Phone: (+45) - 48 13 10 20

DK - 3450 Allerød

Fax: (+45) - 48 13 10 21

Denmark

e-mail: [contact@chemometec.com](mailto:contact@chemometec.com)Responsible person for the safety data sheet (e-mail): [contact@chemometec.com](mailto:contact@chemometec.com)**1.4. Emergency telephone number:**

Emergency Telephone +44 1235 239670 - Europe - Multi lingual response

Austria Poison Information Centre (AT): +43-(0)1-406 43 43

Belgium Poison Centre (BE): +32 70 245 245

Croatia Poison Control (CR): +385 1 2348 342

Czech Republic Poison Control (CS): +420 224 919 293, +420 224 915 402

Denmark Poison Control Hotline (DK): +45 82 12 12 12

Estonia Poison Control (ET): 16662, (+372) 626 93 90

Finland Poison Information Centre (FI): +358 9 471 977

France ORFILA (FR): + 01 45 42 59 59

Germany Poison Centre Berlin (DE): +49 030 30686 790 (24 h service, Advice in German and English)

Greece Poison Information Center (EL): (0030) 2107793777

Hungary Poison Information Service (HU): (+ 36-80) 201-199

Ireland National Poisons Information Centre: +353 1 8379964

Iceland Poison Information Center: 543 2222

Italy Poison Centre, Milan (IT): +39 02 6610 1029

Latvia Poison Information Center (LV): +371 67042473

Lithuania Poison Information Office (LT): +370 5236 20 52 or +370 687 53 378

Luxembourg Belgian Poison Center: (+352) 8002-5500

Malta: Mater Dei Hospital: + 356 21450000

Netherlands National Poisons Information Center (NVIC): 030-274 8888

Norway Poison Center: 22 59 13 00

Poland Poison Control and Information Centre, Warsaw: +48 22 619 66 54, +48 22 619 08 97

Portugal Poison Information Centre (PT): +351 21 330 3284

România: Spitalul de Urgenta Floreasca: +40 21 230 8000

Slovensko: National Toxicological Information Centre: +421 2 54 77 4 166

Slovenija: Poison Centre: + 386 41 650 500

Spain Poison Information Service (ES): +34 91 562 04 20

Swiss Toxicological Information Centre: +41 44 251 51 51

Sweden Giftinformationscentralen, Stockholm: +46 8 33 12 31

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**SECTION 2: Hazards identification**

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**2.1. Classification of the substance or mixture:**

CLP (1272/2008): None

**2.2. Label elements:**

EUH210: Safety data sheet available on request.

**2.3. Other hazards:**

PBT/vPvB: No ingredients are PBT/vPvB, according to the criteria in REACH Annex XIII.

Endocrine disrupting properties: The substances are not identified as having endocrine disrupting properties in accordance with the criteria set out in Regulation 2017/2100 or Regulation 2018/605.

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## SECTION 3: Composition/information on ingredients

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**3.2. Mixtures:**

% w/w	Substance name	CAS-no.	EC-no.	Index-no.	REACH reg.no.	Classification
<2.5	Citric acid monohydrate	5949-29-1	201-069-1*	-	-	Eye Irrit. 2;H319
<0.25	Cetylpyridinium chloride, monohydrate	6004-24-6	204-593-9*	-	-	Acute Tox. 4;H302 (ATE = 560 mg/kg) Acute Tox. 2;H330 (ATE,mist=0.05 mg/l) Skin Irrit. 2;H315 Eye Dam. 1;H318 STOT SE 3;H335 Aquatic Acute 1;H400 (M=100)
<0.2	Trisodium citrate dihydrate	6132-04-3	200-675-3*	-	-	Not classified

\* EC-no (EINECS) corresponds to the CAS-no for the anhydrous compound.

Wording of hazard statements - see section 16.

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## SECTION 4: First-aid measures

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**4.1. Description of first aid measures:**

Inhalation: Move the affected person to fresh air. Keep at rest. If needed: Get medical attention.

Skin contact: Remove contaminated clothing and wash skin with water and mild soap. If irritation persists: Seek medical advice.

Eye contact: Immediately flush with water or physiological salt water for at least 5 minutes, holding eyelids open, remember to remove contact lenses, if any. If irritation persists: Seek medical advice.

Ingestion: Rinse mouth and drink plenty of water. In case of discomfort: Seek medical advice.

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

May cause slight irritation of eyes, skin, lungs and gastrointestinal tract.

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

Show this safety data sheet to a physician or emergency ward.

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## SECTION 5: Firefighting measures

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**5.1. Extinguishing media:**

Not flammable.

**5.2. Special hazards arising from the substance or mixture:**

Not relevant (the product is not combustible).

**5.3. Advice for firefighters:**

Do not inhale smoke fumes. When extinguishing surrounding fires use breathing apparatus with an independent source of air.

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## SECTION 6: Accidental release measures

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**6.1. Personal precautions, protective equipment and emergency procedures:**

Use personal protective equipment - see section 8.

**6.2. Environmental precautions:**

Do not empty into drains – see section 12. Inform appropriate authorities in accordance with local regulations.

**6.3. Methods and material for containment and cleaning up:**

Absorb spilled liquid with inert material and place in a suitable container for disposal. Clean with water. Further handling of spillage - see section 13.

**6.4. Reference to other sections:**

See references above.

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## SECTION 7: Handling and storage

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**7.1. Precautions for safe handling:**

Provide adequate ventilation. Avoid contact with skin, eyes and clothing. Wash with plenty of water and soap after end use.

**7.2. Conditions for safe storage, including any incompatibilities:**

Store in a tightly closed original container in a well-ventilated area.

**7.3. Specific end use(s):**

See section 1.

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## SECTION 8: Exposure controls/personal protection

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**8.1. Control parameters:**

Occupational exposure limits (EH40/2005 with later amendments): None

DNEL/PNEC: No CSR.

**8.2. Exposure controls:**

Appropriate engineering controls: Ensure adequate ventilation.

Personal protective equipment:

Inhalation: Normally not necessary.

Skin: Wear protective gloves of e.g. nitrile or butyl (EN374). Breakthrough time, approx. 3 hours.

Eyes: Wear tight fitting safety goggles (EN166) when there is a risk of splashes.

Environmental exposure controls: None particular.

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## SECTION 9: Physical and chemical properties

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**9.1. Information on basic physical and chemical properties:**

Physical state:	Liquid
Colour:	Clear, colourless
Odour:	Odourless
Melting point/freezing point (°C):	~ 0
Boiling point or initial boiling point and boiling range (°C):	~ 100
Flammability (solid, gas):	Not relevant
Lower and upper explosion limit (vol-%):	Not relevant
Flash point (°C):	> 100
Auto-ignition temperature (°C):	No available data
Decomposition temperature (°C):	No available data
pH:	Acidic
Kinematic viscosity:	No available data
Solubility:	Soluble in water
Partition coefficient n-octanol/water (log value):	No available data
Vapour pressure:	No available data
Density and/or relative density:	~ 1.0
Relative vapour density:	No available data
Particle characteristics:	Not relevant

**9.2. Other information:**

None relevant.

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## SECTION 10: Stability and reactivity

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**10.1. Reactivity:**

No available data.

**10.2. Chemical stability:**

Stable under the recommended storage conditions - see section 7.

**10.3. Possibility of hazardous reactions:**

None known.

**10.4. Conditions to avoid:**

Excessive heating.

**10.5. Incompatible materials:**

Nylon, galvanized steel and chloride. Contact with materials containing chlorine may produce toxic gases.

**10.6. Hazardous decomposition products:**

When heated to high temperatures (decomposition) toxic gasses are formed.

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## SECTION 11: Toxicological information

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**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008:**

Acute toxicity:	Based on available data, the classification criteria are not met.
Skin corrosion/irritation:	Based on available data, the classification criteria are not met.
Serious eye damage/irritation:	Based on available data, the classification criteria are not met.
Respiratory or skin sensitization:	Based on available data, the classification criteria are not met.
Germ cell mutagenicity:	Based on available data, the classification criteria are not met.
Carcinogenicity:	Based on available data, the classification criteria are not met.
Reproductive toxicity:	Based on available data, the classification criteria are not met.
STOT-single exposure:	Based on available data, the classification criteria are not met.
STOT-repeated exposure:	Based on available data, the classification criteria are not met.
Aspiration hazard:	Based on available data, the classification criteria are not met.

**SECTION 11: Toxicological information (continued)**

Hazard class	Data	Test	Data source
Acute toxicity:			
Inhalation	LC <sub>50</sub> (rat) = 0.09 mg/l, dust (Cetylpyridinium chloride)	No info.	RTECS
Dermal	LD <sub>50</sub> (rat) = >2000 mg/kg (Citric acid)	OECD 402	ECHA
Oral	LD <sub>50</sub> (mouse) = 5790 mg/kg (Citric acid)	OECD 401	ECHA
	LD <sub>50</sub> (rat) = 200 mg/kg (Cetylpyridinium chloride)	No info	Literature
Corrosion/irritation:	No irritation, eye and skin, rabbit (Citric acid, monohydrate)	OECD 404, 405	ECHA
	Severe irritation, eye and skin, rodents (Cetylpyridinium chloride)	Several	Literature
Sensitization:	No skin sensitization, guinea pig (Cetylpyridinium chloride)	No info	Literature
CMR:	No Mutagenicity (Citric acid)	OECD 475	ECHA
	No carcinogenicity nor mutagenicity (Cetylpyridinium chloride)	No info	Literature

Information on likely routes of exposure: Inhalation, skin and ingestion.

Symptoms:

Inhalation: Vapours may cause slight irritation to the airways.

Skin: May cause slight irritation by prolonged contact with skin.

Eyes: May cause eye irritation.

Ingestion: May cause irritation of the gastrointestinal tract, nausea, vomiting and headache.

Chronic effects: Long term or repeated skin contact may degrease and cause red, dry, cracked and thickened skin.

**11.2. Information on other hazards:**

None known.

**SECTION 12: Ecological information****12.1. Toxicity:**

Cetylpyridinium chloride is very toxic to the aquatic environment.

Aquatic	Data	Test (Media)	Data source
Fish	LC <sub>50</sub> (Cyprinus carpio, 96h) = 0.011 mg/l (Cetylpyridinium chloride) LC <sub>50</sub> (Leuciscus idus melanotus, 96h) = 440 mg/ (Citric acid)	No Info (FW) OECD 203	EPA Ecotox ECHA
Daphnia	EC <sub>50</sub> , (Dreissena polymorpha, 48h) = >50 mg/l (Citric acid)	OECD 202 (FW)	ECHA
Algae	EC <sub>50</sub> , (Scenedesmus quadricauda) = 640 mg/l (Citric acid)	No Info (FW)	IUCLID

**12.2. Persistence and degradability:**

Cetylpyridinium chloride: 25% degraded in 28 d. (OECD 301D) - Not readily degradable.

Citric acid monohydrate is easily degradable.

**12.3. Bioaccumulative potential:**

Cetylpyridinium chloride: Log K<sub>ow</sub> = 1.71 – possible bioaccumulation.

Citric acid: Log K<sub>ow</sub> = >1 – no bioaccumulation.

**12.4. Mobility in soil:**

No available/applicable data

**12.5. Results of PBT and vPvB assessment:**

No ingredients are PBT/vPvB, according to the criteria in REACH Annex XIII.

**12.6. Endocrine disrupting properties:**

None known.

**12.7. Other adverse effects:**

None known.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods:**

The mixture is not to be considered as hazardous waste. Disposal should be according to local, state or national legislation. Dispose of through authority facilities or pass to chemical disposal company.

**EWC-code:** 16 05 09 (mixture itself)  
15 02 03 (paper towel, inert material etc. contaminated with the mixture)

**SECTION 14: Transport information**

Not dangerous goods (ADR/RID/IMDG/IATA).

**14.1. UN number or ID number:** None.

**14.2. UN proper shipping name:** None.

**14.3. Transport hazard class(es):** None.

**14.4. Packing group:** None.

**14.5. Environmental hazards:** No.

**14.6. Special precautions for user:** None.

**14.7. Maritime transport in bulk according to IMO instruments:** Not relevant.

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**SECTION 15: Regulatory information**

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

None

**15.2. Chemical safety assessment:**

No CSR.

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**SECTION 16: Other information**

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**Hazard statements mentioned in section 2 and 3:**

H302: Harmful if swallowed.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H330: Fatal if inhaled.

H335: May cause respiratory irritation.

H400: Very toxic to aquatic life.

**Abbreviations:**

CMR = Carcinogenicity, mutagenicity and reproductive toxicity.

CSR = Chemical Safety Report

DNEL = Derived No-Effect Level

EC<sub>50</sub> = Effect Concentration 50%

FW = Fresh Water

LC<sub>50</sub> = Lethal Concentration 50%LD<sub>50</sub> = Lethal Dose 50%

PBT = Persistent, Bioaccumulative, Toxic

PNEC = Predicted No-Effect Concentration

vPvB = very Persistent, very Bioaccumulative

**Literature:**

ECHA = European Chemicals Agency

EPA Ecotox = The US Environmental Protection Agency's database on ecotoxicological effects for chemicals.

IUCLID = International Uniform Chemical Information Database.

RTECS = Register of Toxic Effects of Chemical Substances

**Training advice:**

No special training is required. However, the user should be well instructed in the execution of his/her task, be familiar with this Safety Data Sheet and have normal training in the use of personal protective equipment.

**Changes since the previous edition:**

Section 1-16 (Revision of the format according to Regulation 2020/878)