

## SAFETY DATA SHEET

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

**SECTION 1: Identification of the substance/mixture and of the company/ undertaking****1.1. Product identifier:****Solution 17 - Blood Lysis Buffer 25 mL****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

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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:**

NHS (England or Wales): Dial 111 or 0845 4647 NHS 24 (Scotland): Dial 111

**SECTION 2: Hazards identification****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:** Contains Sodium azide. Contact with acids may form toxic gases.

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

**SECTION 3: Composition/information on ingredients****3.2. Mixtures:**

% w/w	Substance name	CAS-no.	EC-no.	Index-no.	REACH reg.no.	Classification
<1	Ammonium chloride	12125-02-9	235-186-4	017-014-00-8	-	Acute Tox. 4;H302 Eye Irrit. 2;H319
<1	Tris-hydrochloride	1185-53-1	214-684-5	-	-	Not classified
<0.1	DAPI dilactate	28718-91-4	-	-	-	Muta 1A;H340
<0.1	AO (Acridine Orange Base)	10127-02-3	233-353-6	-	-	Muta 2;H341 Acute Tox. 4;H302 Acute Tox. 4;H312 Acute Tox. 4;H332
0.01	Sodium azide	26628-22-8	247-852-1	011-004-00-7	-	Acute Tox. 2;H300 Aquatic Acute 1;H400 Aquatic Chronic 1;H410 EUH032

Wording of hazard statements - see section 16.

**SECTION 4: First-aid measures****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 15 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.

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**SECTION 4: First-aid measures (continued)**

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**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: Fire-fighting 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):

Substance	TWA (8h)	STEL (15 min.)	Comments
Sodium azide	0.1 mg/m <sup>3</sup>	0.3 mg/m <sup>3</sup>	Sk (can be absorbed through the skin)

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:**

Appearance:	Yellow liquid
Odour:	Odourless
Odour threshold:	No available data
pH:	Neutral
Melting point / freezing point (°C):	~ 0
Initial boiling point and boiling range (°C):	~ 100
Decomposition temperature (°C):	No available data
Flash point (°C):	No available data
Evaporation rate:	No available data
Flammability (solid, gas):	Not relevant

**SECTION 9: Physical and chemical properties (continued)**

Upper/lower flammability or explosive limits (vol.-%):	Not relevant
Vapour pressure (mbar, 25°C):	No available data
Vapour density (air=1):	No available data
Relative density (g/ml):	~ 1.0
Solubility:	Completely soluble in water
Partition coefficient: n-octanol/water, Log $K_{ow}$ :	No available data
Auto-ignition temperature (°C):	No available data
Viscosity:	No available data
Explosive/Oxidising properties:	Not relevant
<b>9.2. Other information:</b>	None relevant

**SECTION 10: Stability and reactivity****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 and direct sunlight.

**10.5. Incompatible materials:**

Strong oxidizing agents, reducing agents, strong acids and bases, heavy metals and salts. Sodium azide forms a very toxic gas (hydrogen azide) in contact with acids. Sodium azide may react with lead and copper, to form explosive metalazides.

**10.6. Hazardous decomposition products:**

When heated to high temperatures (decomposition) toxic gasses are formed such as oxides of nitrogen, sodium and carbon, hydrogen chloride and phosgene.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects:**

Hazard class	Data	Test	Data source
Acute toxicity: Inhalation  Dermal Oral	LC <sub>50</sub> (rat) = 37 mg/m <sup>3</sup> (Sodium azide)	No info	RTECS
	LD <sub>50</sub> (rat) = >2000 mg/kg (Ammonium chloride)	EU Method B.3	ECHA
	LD <sub>50</sub> (rabbit) = 20 mg/kg (Sodium azide)	No info	RTECS
	LD <sub>Lo</sub> (woman) = 14 mg/kg (Sodium azide)	No info	RTECS
	LD <sub>50</sub> (rat) = 27 mg/kg (Sodium azide)	No info	RTECS
	LD <sub>50</sub> (rat) = 1410 mg/kg (Ammonium chloride)	No info	ECHA
Corrosion/irritation:	No irritation, skin and eyes (Sodium azide)	No info	ECHA
Sensitization:	No skin sensitization, guinea pig (Sodium azide)	OECD 419	ECHA
	Not sensitizing, guinea pig (Ammonium chloride)	EPA 540/9-82-025	ECHA
CMR:	TD <sub>Lo</sub> = 2730 mg/kg/78W (rat, continuous) "Equivocal tumorigenic agent" (Sodium azide)	No info	RTECS
	TD <sub>Lo</sub> = 177.5 mg/kg (rat, 6-19 days after birth): "Effects on embryo or foetus" (Sodium azide)	No info	RTECS
	No mutagenic effects, mouse (Ammonium chloride)	In vivo	ECHA

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

**Symptoms:**

Inhalation: Vapours may cause irritation to the airways.

Skin: May cause 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: Sodium azide in its pure form does affect the CNS, is a possible mutagen and have caused carcinogenic effect in rats. No conclusive data for humans. DAPI dilactate and AO (Acridine Orange Base) may cause genetic defects. Long term or repeated skin contact may degrease and cause red, dry, cracked and thickened skin.

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

Aquatic	Data	Test (Media)	Data source
Fish	LC <sub>50</sub> (Lepomis macrochirus, 96h) = 0.68 mg/l (Sodium azide) LC <sub>50</sub> , (Cyprinus carpio, 96h) = 209 mg/l (Ammonium chloride)	No info E03-05:APHA	EPA Ecotox ECHA
Daphnia	EC <sub>50</sub> (Daphnia pulex, 48h) = 4.2 mg/l (Sodium azide) EC <sub>50</sub> , (Daphnia magna, 48h) = 101 mg/l (Ammonium chloride)	No info ASTM E729-80	EPA Ecotox ECHA
Algae	EC <sub>50</sub> (Pseudokirchneriella subcapitata, 96h) = 0.35 mg/l (Sodium azide) EC <sub>50</sub> , (Navicula sp. 10d) = 90,4 mg/l (Ammonium chloride)	No info No info	EPA Ecotox ECHA

**12.2. Persistence and degradability:**

Sodium azide and Ammonium chloride are an inorganic substance, methods for the determination of the biological degradation is not applicable to inorganic substances

**12.3. Bioaccumulative potential:**

Sodium azide: Log K<sub>ow</sub> < 1 - No significant bioaccumulative potential.

**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. Other adverse effects:**

None known

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

The mixture is 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-no.:** None

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

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

**14.4. Packing group:** None

**14.5. Environmental hazards:** No

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

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not relevant.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:**

None

**15.2. Chemical Safety Assessment:**

No CSR.

**SECTION 16: Other information****Hazard statements mentioned in section 2 and 3:**

H300: Fatal if swallowed.

H302

H312

H332

H319

H340

H341

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

EUH032: Contact with acids liberates very toxic gas.

EUH210: Safety data sheet available on request.

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**SECTION 16: Other information (continued)**

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**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.

**Other information:**

Prepared based on the information available to Alttox A/S as of December 2016.

**Changes since the previous edition:**

2, 3, 11, 12,

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