

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:

dPCR-buffer (2x)

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:

Samplix ApS Phone: (+45) - 28 30 95 07

Mileparken 28

DK-2730 Herlev

Responsible person for the safety data sheet (e-mail): rsh@samplix.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: None known.

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-<10	Glycerol*	56-81-5	200-285-5	None	None	Not classified
<5	Tris-hydrochloride (TRIS-HCl)	1185-53-1	214-684-5	None	None	Skin Irrit. 2;H315 Eye Irrit. 2;H319
<1	Ammonium chloride	12125-02-9	235-186-4	017-014-00-8	None	Acute Tox. 4;H302 Eye Irrit. 2;H319

*The substance has an occupational exposure limit.

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 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.

SECTION 5: Fire-fighting measures

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.

SECTION 6: Accidental release measures

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.

SECTION 7: Handling and storage

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.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters:

Occupational exposure limits (EH40/2015 with later amendments (2018)):

Substance	TWA (8h)	STEL (15 min.)	Comments
Glycerol, mist	10 mg/m ³	-	-

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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties:

Appearance:	Liquid
Odour:	Odourless
Odour threshold:	No available data
pH:	No available data
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
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 properties:	Not relevant
Oxidising properties:	Not relevant

9.2. Other information:

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:

None known.

10.6. Hazardous decomposition products:

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects:

Hazard class	Data	Test	Data source
Acute toxicity:			
Inhalation	No available/applicable data	Not relevant	Not relevant
Dermal	LD ₅₀ (rat) = >2000 mg/kg (Ammonium chloride)	EU Method B.3	ECHA
	LD ₅₀ (rat) > 5000 mg/kg (TRIS-HCl)	No info	Supplier
Oral	LD ₅₀ (rat) = 1410 mg/kg (Ammonium chloride)	No info	ECHA
	LD ₅₀ (rotte) > 3000 mg/kg (TRIS-HCl)	No info	Supplier
Corrosion/irritation:	Moderate skin irritation (Ammonium chloride)	Other guideline	ECHA
	Skin and eyes irritation (TRIS-HCl)	OECD 404, 405	IUCLID
Sensitization:	Not sensitizing, guinea pig (Ammonium chloride)	EPA 540/9-82-025	ECHA
	Not sensitizing, mouse (TRIS HCl)	OECD 429	ECHA
CMR:	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: None known.

SECTION 12: Ecological information

12.1. Toxicity:

Aquatic	Data	Test (Media)	Data source
Fish	LC ₅₀ , (Cyprinus carpio, 96h) = 209 mg/l (Ammonium chloride)	E03-05:APHA	ECHA
	LC ₅₀ (Leuciscus idus, 96 h) > 10000 mg/l (TRIS-HCl)	No info	Supplier
Daphnia	EC ₅₀ , (Daphnia magna, 48h) = 101 mg/l (Ammonium chloride)	ASTM E729-80	ECHA
	EC ₅₀ (Daphnia magna, 48 h) > 100 mg/l (TRIS-HCl)	No info	Supplier
Algae	EC ₅₀ , (Navicula sp. 10d) = 90,4 mg/l (Ammonium chloride)	No info	ECHA
	EC ₅₀ (Selenastrum capricornutum, 96 h) > 100 mg/l (TRIS-HCl)	No info	Supplier

12.2. Persistence and degradability:

Ammonium chloride is an inorganic substance, methods for the determination of the biological degradation is not applicable to inorganic substances. TRIS-HCl is rapidly degradable.

12.3. Bioaccumulative potential:

No available/applicable data.

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 non-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:

H302: Harmful if swallowed.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

Abbreviations:

CMR = Carcinogenicity, mutagenicity and reproductive toxicity.

CSR = Chemical Safety Report

DNEL = Derived No-Effect Level

EC₅₀ = Effect Concentration 50%

FW = Fresh Water

LC₅₀ = Lethal Concentration 50%

LD₅₀ = 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 at the revision date.

Changes since the previous edition:

Not relevant

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