SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006
(amended by Regulation (EU) 2020/878)

Frag/AT Buffer

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

1.1. Product identifier

Product name	Frag/AT Buffer
Product code	W0004

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

Use of the Substance/Mixture	No information available.

1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification	SOPHiA GENETICS SA La Pièce 12 CH-1180 Rolle Switzerland +41 21 694 10 60 http://www.sophiagenetics.com
1.4. Emergency telephone number	local: 145 (Tox Info Suisse) international: +41 44 251 51 51
Revision date	25.06.2025
Version	GHS 2

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008

Acute toxicity, oral, Cat. 3, H301
Specific target organ toxicity (single exposure), Cat. 2, H371
Hazardous to the aquatic environment, chronic, Cat. 3, H412

Additional information

For the full text of the phrases mentioned in this Section, see Section 16.

2.2. Label elements

Signal Word

Danger

Hazard Statements

H301: Toxic if swallowed.
H371: May cause damage to organs.
H412: Harmful to aquatic life with long lasting effects.

Precautionary statements

P260: Do not breathe vapour/mist.
P264: Wash hands and any exposed skin thoroughly after handling.
P273: Avoid release to the environment.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P321: Specific treatment (see instructions on this label).
P501: Dispose of contents/container in accordance with local regulations.

Supplemental information

None.

Product identifier

Tetramethylammonium chloride, CAS-No. 75-57-0, EC-No. 200-880-8

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Components	Weight %	CLP Classification	Product identifier
Tromethamine	3% - 5%	Skin Irrit. 2 H315, Eye Irrit. 2 H319	CAS-No.: 77-86-1 EC-No.: 201-064-4
Tetramethylammonium chloride	1% - 3%	Acute Tox. 2 H300, Acute Tox. 3 H311, Skin Irrit. 2 H315, STOT SE 1 H370o (Central nervous system), Aquatic Chronic 2 H411	CAS-No.: 75-57-0 EC-No.: 200-880-8

For the full text of the phrases mentioned in this Section, see Section 16.

Hazardous impurities

None known.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Consult a physician for severe cases. Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician immediately.
Eye contact	If eye irritation persists, consult a specialist. Rinse immediately with plenty of water, also under the eyelids, for at least 5 minutes. Protect unharmed eye.
Ingestion	Immediately give plenty of water (if possible charcoal slurry). Obtain medical attention.
4.2. Most important symptoms and effects, both acute and delayed	Get medical advice/ attention if you feel unwell. Most important symptoms: Erythema. Symptoms of poisoning may only appear several hours later.
4.3. Indication of any immediate medical attention and special treatment needed	None known.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry extinguishing agent or carbon dioxide.
Unsuitable extinguishing media	High volume water jet.
5.2. Special hazards arising from the substance or mixture	During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

5.3. Advice for firefighters

Special protective equipment for firefighters	Standard procedure for chemical fires. In the event of fire, wear self-contained breathing apparatus. Complete suit protecting against chemicals.
Specific methods	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Use personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapours/dust.
For emergency responders	Use personal protective equipment. Do not breathe vapours/dust. Immediately evacuate personnel to safe areas. Ventilate the area.
6.2. Environmental precautions	Do not flush into surface water or sanitary sewer system. Contain spillage, and then collect with non-combustible absorbent material, (e.g. universal binder, sand, diatomaceous earth, vermiculite). Advise water authority if spillage has entered water course or drainage system.
6.3. Methods and material for containment and cleaning up	Small quantities: Wipe up with adsorbent material (e.g. cloth, fleece). Large quantities: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable and closed containers for disposal (Plastic container of HDPE).
6.4. Reference to other sections	See chapter 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Wear personal protective equipment. Avoid contact with skin and eyes. Plan first aid action before beginning work with this product. Do not breathe vapours/dust.
7.2. Conditions for safe storage, including any incompatibilities	Store in a place accessible by authorized persons only. Keep container tightly closed. Store in original container.
7.3. Specific end use(s)	No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit(s)	No data is available on the product itself.

8.2. Exposure controls

Appropriate engineering controls	Contaminated work clothing should not be allowed out of the workplace. Handle in accordance with good industrial hygiene and safety practice. Keep working clothes separately.

Personal protection equipment

Respiratory protection	No special protective equipment required.
Hand protection	Gloves made of Nitril. Break through time: > 4 h. Minimum layer thickness: 0.11mm. The selected protective gloves have to satisfy the specifications of Regulation (EU) No. 2016/425 and the standard EN 374 derived from it.
Eye protection	Safety glasses with side-shields conforming to EN166.
Skin and body protection	Long sleeved clothing.
Thermal hazards	No special measures required.

Environmental exposure controls Prevent product from entering surface water or sewage.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Colourless.
Odour	Mild.
Melting point/ freezing point:	Not determined.
Boiling point or initial boiling point / range:	Not determined.
Flammability:	non-flammable
Lower and upper explosion limit:	Not determined.
Flash point:	Not determined.
Auto-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
pH:	8.3
Kinematic viscosity:	Not determined.
Solubility:	miscible (Water)
Partition coefficient n-octanol/water (log value):	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density:	Not determined.
Relative vapour density:	Not determined.
Particle characteristics:	Not applicable.

9.2. Other information

9.2.1 Information with regard to physical hazard classes	No information available.
9.2.2 Other safety characteristics	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity No reactivity hazard.

10.2. Chemical stability	No decomposition if used as directed.
10.3. Possibility of hazardous reactions	No information available.
10.4. Conditions to avoid	Burning produces obnoxious and toxic fumes.
10.5. Incompatible materials	Strong acids and strong bases. Oxidizing agents.
10.6. Hazardous decomposition products	None under normal use.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	Toxic if swallowed. **Tromethamine (CAS 77-86-1)** Dermal LD50 Rat > 5000 mg/kg (ECHA) Oral LD50 Rat = 5900 mg/kg (NLM_CIP) **Tetramethylammonium chloride (CAS 75-57-0)** Dermal LD50 Rabbit 200 - 500 mg/kg (ECHA_API) Oral LD50 Rat = 50 mg/kg (NLM_CIP)
Skin corrosion/irritation	Negligible.
Serious eye damage/eye irritation	Contact with eyes may cause irritation.
Respiratory or skin sensitisation	None.
Carcinogenicity	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity - Single exposure	May cause damage to organs (Central nervous system) if swallowed.
Specific target organ toxicity - Repeated exposure	No data available.
Aspiration hazard	No data available.
Human experience	No data available.

11.2. Information on other hazards

Endocrine disrupting properties	Contains no endocrine disrupting chemicals.
Other information	No data available.

SECTION 12: Ecological information

12.1. Toxicity	Toxic to aquatic life with long lasting effects.

Tetramethylammonium chloride (CAS 75-57-0)

Ecotoxicity - Freshwater Fish - Acute Toxicity Data	LC50 96 h Pimephales promelas 431 - 495 mg/L [flow-through] (EPA)
12.2. Persistence and degradability	Neutralization is normally necessary before waste water is discharged into water treatment plants. Not readily biodegradable.
12.3. Bioaccumulative potential	The product may be accumulated in organisms.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
12.6. Endocrine disrupting properties	Contains no endocrine disrupting chemicals.
12.7. Other adverse effects	No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Dispose of as unused product. Offer rinsed packaging material to local recycling facilities.

SECTION 14: Transport information

14.1. UN number or ID number	UN 2810
14.2. UN proper shipping name	TOXIC LIQUID, ORGANIC, N.O.S. (Tetramethylammonium chloride)
14.3. Transport hazard class(es)	6.1
14.4. Packing group	III
14.5. Environmental hazards	Marine pollutant: No.
14.6. Special precautions for user	Not applicable.
14.7. Maritime transport in bulk according to IMO instruments	Not applicable.

UN Model Regulations

ADR/RID	UN 2810. Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Tetramethylammonium chloride). Class 6.1. Packing group III. ADR/RID-Labels 6.1. Classification code T1. Hazard identification no. 60. Limited quantity 5 L. Excepted quantity E1. Transport category 2. Tunnel restriction code (E).
IMDG	UN 2810. Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Tetramethylammonium chloride). Class 6.1. Packing group III. IMDG-Labels 6.1. Limited quantity 5 L. Excepted quantity E1. EmS F-A, S-A. Marine pollutant: No.
IATA	UN 2810. Proper shipping name: Toxic liquid, organic, n.o.s. (Tetramethylammonium chloride). Class 6.1. Packing group III. IATA label 6.1. Packing instruction (passenger aircraft): 655 (60 L). Packing instruction (LQ): Y642 (2 L). Packing instruction (cargo aircraft): 663 (220 L).
Inland navigation ADN	UN 2810. Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Tetramethylammonium chloride). Class 6.1. Packing group III. ADN labels 6.1. Classification code T1. Limited quantity 5 L. Excepted quantity E1.
Further Information	None.

SECTION 15: Regulatory information

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

Regulatory Information	Take note of Dir 94/33/EC on the protection of young people at work. Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers.

	Take note of the Swiss regulation on maternity protection (SR 822.111.52). Youth Employment Protection Ordinance (ArGV 5, SR 822.115): Adolescents up to the age of 18 may only come into contact with or be exposed to this product at their work, if this is provided for in the respective education regulation to achieve their educational goals and the prerequisites of the education plan are fulfilled. Young people who are not in basic vocational training are not allowed to work with this product. Water contaminating class (WGK Germany) = 1. Storage class 6.1.

Tromethamine (CAS 77-86-1)

EU - REACH (1907/2006) - List of Registered Substances	Present

Tetramethylammonium chloride (CAS 75-57-0)

EU - REACH (1907/2006) - List of Registered Intermediates	Present ([200-880-8])
EU - REACH (1907/2006) - List of Registered Substances	Present

15.2. Chemical safety assessment	Not required.

SECTION 16: Other information

Key or legend to abbreviations and acronyms	CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS)
Key literature references and sources for data	Sources of key data used to compile the Safety Data Sheet: REACH, ECHA.
Classification procedure	Classification according to Regulation (EC) No. 1272/2008.
Full text of phrases referred to under sections 2 and 3	H300: Fatal if swallowed. H301: Toxic if swallowed. H311: Toxic in contact with skin. H315: Causes skin irritation. H319: Causes serious eye irritation. H370: Causes damage to organs if swallowed. H371: May cause damage to organs. H411: Toxic to aquatic life with long lasting effects. H412: Harmful to aquatic life with long lasting effects.
Further information	Take notice of the directions of use on the label.
Instructions for use	Restricted to professional users.
Disclaimer	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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