

SAFETY DATA SHEET

Multistaining Buffer (20X)


Section 1. Identification

Multistaining Buffer (20X)	: Product identifier
Not available.	: Other means of identification
BU06	: Product code
Professional use. Use in laboratories: Research.	: Product use
Lunaphore Technologies SA Route de Lully 5C, CH-1131 Tolochenaz, Switzerland + 41 800 84 86 89 support-tech@lunaphore.com	: Supplier's details
CHEMTREC: +972 3-763-0639 (Local)	: e-mail address of person responsible for this SDS
	: Emergency telephone number

Section 2. Hazard identification

SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	: Classification of the substance or mixture
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GHS label elements

	: Hazard pictograms
	: Signal word
Warning	: Hazard statements
H315 - Causes skin irritation. H319 - Causes serious eye irritation. H335 - May cause respiratory irritation.	
<u>Precautionary statements</u>	: Prevention
P280 - Wear protective gloves. Wear eye or face protection. P271 - Use only outdoors or in a well-ventilated area. P261 - Avoid breathing vapor. P264 - Wash hands thoroughly after handling.	
P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P332 + P313 - If skin irritation occurs: Get medical advice or attention. 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 or attention.	: Response
P405 - Store locked up.	: Storage
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.	
P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.	: Disposal

Section 2. Hazard identification

None known.

: Other hazards which do not result in classification

Section 3. Composition/information on ingredients

Mixture

: Substance/mixture

Not available.

: Other means of identification

BU06

: Product code

CAS number	%	Ingredient name
7647-14-5	15 - 20	sodium chloride
77-86-1	15 - 20	trometamol

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

: Eye contact

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

: Inhalation

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

: Skin contact

Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

: Ingestion

Most important symptoms/effects, acute and delayed

Potential acute health effects

Causes serious eye irritation.

: Eye contact

May cause respiratory irritation.

: Inhalation

Causes skin irritation.

: Skin contact

No known significant effects or critical hazards.

: Ingestion

Over-exposure signs/symptoms

Section 4. First aid measures

Adverse symptoms may include the following: pain or irritation watering redness	: Eye contact
Adverse symptoms may include the following: respiratory tract irritation coughing	: Inhalation
Adverse symptoms may include the following: irritation redness	: Skin contact
No specific data.	: Ingestion

Indication of immediate medical attention and special treatment needed, if necessary

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.	: Notes to physician
No specific treatment.	: Specific treatments
No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.	: Protection of first-aiders

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Use dry chemical, CO ₂ , water spray (fog) or foam. Use an extinguishing agent suitable for the surrounding fire.	: Suitable extinguishing media
Do not use water jet.	: Unsuitable extinguishing media
In a fire or if heated, a pressure increase will occur and the container may burst.	: Specific hazards arising from the chemical
Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides hydrogen chloride gas	: Hazardous thermal decomposition products
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.	: Special protective actions for fire-fighters
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.	: Special protective equipment for fire-fighters

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.	: For non-emergency personnel
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Section 6. Accidental release measures

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". : **For emergency responders**

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). : **Environmental precautions**

Methods and materials for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. : **Small spill**

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. : **Large spill**

Section 7. Handling and storage

Precautions for safe handling

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. : **Protective measures**

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. : **Advice on general occupational hygiene**

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. : **Conditions for safe storage, including any incompatibilities**

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. : **Appropriate engineering controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. : **Environmental exposure controls**

Section 8. Exposure controls/personal protection

Individual protection measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. : **Hygiene measures**

Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. : **Eye/face protection**

Skin protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. : **Hand protection**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. : **Body protection**

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. : **Other skin protection**

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. : **Respiratory protection**

SECTION 9: Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Liquid.	: Physical state
Colorless.	: Color
Not available.	: Odor
Not available.	: Odor threshold
7.4 [25°C (77°F)]	: pH
Not available.	: Melting point/freezing point
Not available.	: Boiling point, initial boiling point, and boiling range
Not available.	: Flash point
Not available.	: Evaporation rate
Not applicable.	: Flammability
Not available.	: Lower and upper explosion limit/flammability limit
Not available.	: Vapor pressure
Not available.	: Relative vapor density
Not available.	: Relative density
Miscible in water.	: Solubility

SECTION 9: Physical and chemical properties and safety characteristics

Not available.	: Solubility in water
Yes.	: Miscible with water
Not applicable.	: Partition coefficient: n-octanol/water
Not available.	: Auto-ignition temperature
Not available.	: Decomposition temperature
Not available.	: Viscosity
<u>Particle characteristics</u>	
Not applicable.	: Median particle size

Section 10. Stability and reactivity

No specific test data related to reactivity available for this product or its ingredients.	: Reactivity
The product is stable.	: Chemical stability
Under normal conditions of storage and use, hazardous reactions will not occur.	: Possibility of hazardous reactions
Keep away from heat, sparks and flame.	: Conditions to avoid
Reactive or incompatible with the following materials: oxidizing agents.	: Incompatible materials
Under normal conditions of storage and use, hazardous decomposition products should not be produced.	: Hazardous decomposition products

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available. : Conclusion/Summary

Irritation/Corrosion

Causes skin irritation. : Conclusion/Summary

Causes serious eye irritation. : Skin

May cause respiratory irritation. : Eyes

Sensitization

Not available. : Respiratory

Mutagenicity

Not available. : Conclusion/Summary

Carcinogenicity

Not available. : Conclusion/Summary

Reproductive toxicity

Not available. : Conclusion/Summary

Teratogenicity

Not available. : Conclusion/Summary

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Target organs	Route of exposure	Category	Name
Respiratory tract irritation	-	Category 3	trometamol

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Not available.

: Information on the likely routes of exposure

Potential acute health effects

Causes serious eye irritation.

: Eye contact

May cause respiratory irritation.

: Inhalation

Causes skin irritation.

: Skin contact

No known significant effects or critical hazards.

: Ingestion

Symptoms related to the physical, chemical and toxicological characteristics

Adverse symptoms may include the following:
pain or irritation
watering
redness

: Eye contact

Adverse symptoms may include the following:
respiratory tract irritation
coughing

: Inhalation

Adverse symptoms may include the following:
irritation
redness

: Skin contact

No specific data.

: Ingestion

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Not available.

: Potential immediate effects

Not available.

: Potential delayed effects

Long term exposure

Not available.

: Potential immediate effects

Not available.

: Potential delayed effects

Potential chronic health effects

Not available.

Not available.

: Conclusion/Summary

No known significant effects or critical hazards.

: General

No known significant effects or critical hazards.

: Carcinogenicity

No known significant effects or critical hazards.

: Mutagenicity

No known significant effects or critical hazards.

: Reproductive toxicity

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 11. Toxicological information

Section 12. Ecological information

Toxicity

Not available.

: Conclusion/Summary

Persistence and degradability

There are no data available on the mixture itself.

: Conclusion/Summary

Bioaccumulative potential

Not available.

Mobility in soil

Not available.

: Soil/water partition coefficient (K_{oc})

Not available.

: Mobility

No known significant effects or critical hazards.

: Other adverse effects

Section 13. Disposal considerations

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

: Disposal methods

Section 14. Transport information

IATA	IMDG	UN	
Not regulated.	Not regulated.	Not regulated.	UN number
-	-	-	UN proper shipping name
-	-	-	Transport hazard class(es)
			Label
-	-	-	Packing group
No.	Marine Pollutant: No	No.	Environmental hazards

Section 14. Transport information

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage. : **Special precautions for user**

Not applicable.

: **Transport in bulk according to IMO instruments**

Section 15. Regulatory information

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

All components are listed or exempted.

: **Australia**

All components are listed or exempted.

: **Canada**

All components are listed or exempted.

: **China**

All components are listed or exempted.

: **Europe**

All components are listed or exempted.

: **New Zealand**

All components are listed or exempted.

: **Philippines**

All components are listed or exempted.

: **Republic of Korea**

All components are listed or exempted.

: **Taiwan**

All components are listed or exempted.

: **Thailand**

All components are listed or exempted.

: **Turkey**

All components are active or exempted.

: **United States**

All components are listed or exempted.

: **Viet Nam**

Section 16. Other information

History

15/12/2021

: **Date of printing**

15/12/2021

: **Date of issue/Date of revision**

15/12/2021

: **Date of previous issue**

1

: **Version**

ATE = Acute Toxicity Estimate

: **Key to abbreviations**

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

SGG = Segregation Group

UN = United Nations

Section 16. Other information

[Procedure used to derive the classification](#)

Justification	Classification
Calculation method	SKIN CORROSION/IRRITATION - Category 2
Calculation method	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
Calculation method	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Not available.

[: References](#)

Indicates information that has changed from previously issued version. 

[Notice to reader](#)

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.