SAFETY DATA SHEET

According to Regulation (EU) No. 2020/878

Buffer PL

Version	Revision Date:	Date of last issue: 2026/01/01
4.0	2026/01/01	Date of first issue: 2023/06/29

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

1.1 Product identifier

Product name: Buffer PL

Product number: 530-002801-00 ， 530-002806-00

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

Recommended restrictions: Reagent.

1.3 Details of the supplier of the safety data sheet

Company	Wuhan MGI Tech Co., Ltd
Address 1	Building 24, Stage 3.1, BioLake Accelerator, No.388, 2nd Gaoxin Road, East Lake High-Tech Development Zone, Wuhan, China
Address 2	No.66.7th Guanggu Road, East Lake High-TechDevelopment Zone, 430075, Wuhan, P.R. China
Zip code	430075
Web	https://en.mgi-tech.com
E-mail	MGI-service@mgi-tech.com
TEL.	+86 4000-688-114

1.4 Details of the EU supplier for the Safety Data Sheet

Company	Latvia MGI Tech, SIA
Address	Lidostas parks, Marupes pag., Marupes nov., LV-2167, Latvia
Zip code	LV-2167
Web	http://en.mgitech.cn
E-mail	mgi.lv@genomics.cn
TEL.	+371 67074475

1.5 Emergency telephone number

+86 4000-688-114

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Serious eye damage/eye irritation	Category 1
Skin corrosion/irritation	Category 2
Specific target organ toxicity – Repeated	Category 2,
Hazardous to the aquatic environment – acute	Category 1
Hazardous to the aquatic environment – chronic	Category 2
Reproductive Toxicity	Category 1
Skin Sensitisation	Category 1

Adverse physicochemical, human health and environment

To our knowledge, this product can cause some damage in contact with the skin, and can also cause eye damage or eye irritation; It will have a certain impact on the aquatic environment.

2.2 Label elements

Labelling

Hazard pictograms:

Signal Word: Danger

Hazard statements:

H317: Get emergency medical help.

H318:. if exposed or concerned, get medical advice.

H360： Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

H400: Very toxic to aquatic life.

Precautionary statements:

Prevention：

P201: Obtain special instructions before use.

P260: Do not breathe dust/fume/gas/mist/vapors/spray.

P273: Avoid releasing to the environment。

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response：

P391: Collect spillage..

P332 + P313: If skin irritation occurs: Get medical advice/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.

P308+P313: IF exposed or concerned: Get medical advice/attention.

P337+P313: IF eye irritation persists: Get medical advice/attention.

Storage:

P405: Store locked up.

Disposal:

P501: Dispose of contents/container to… in accordance with local/regional/national/ international regulations (to be specified).

EUH-statements:

No CLP disposal statements.

2.3 Other hazards

This product contains PBT/vPvB chemicals.

9002-93-1	Triton X-100	Endocrine disruptor

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Ingredient	CAS-No.	EC No.	Concentration (% w/V)	Classification
Triton-X100	9002-93-1	618-344-0	2%-7%	Acute Tox. Oral Category 4, H302 Skin corrosion/irritation Category 2, H315 Serious eye damage/eye irritation Category 2, H319
Cetrimonium bromide	57-09-0	200-311-3	2%-5%	Acute Tox. Oral Category 4, H302 Skin corrosion/irritation Category 2 H315 Serious eye damage/eye irritation Category 1, H318 Specific target organ toxicity – Single Category 3, H335 Specific target organ toxicity – Repeated Category 2, H373 Hazardous to the aquatic environment – acute Category 1, H400 Hazardous to the aquatic environment – chronic Category 1, H410
Quinolin-8-ol	148-24-3	205-711-1	<1%	Acute Tox. Oral Category 3, H301 Serious eye damage/eye irritation Category 1, H318 Skin Sensitisation Category 1, H317 Reproductive Toxicity Category 1B, H360 Hazardous to the aquatic environment – acute Category 1, H400 Hazardous to the aquatic environment – chronic Category 1, H410
Hydrogen chloride	7647-01-0	231-595-7	<1%	Eye Irrit. 2; H319: 10 % ≤ C < 25 % STOT SE 3; H335: C ≥ 10 % Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 %
Water	7732-18-5	231-791-2	82%-90%	Non-hazardous
Other	-	-	<1%	Non-hazardous

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off with plenty of soap and water for at least 15 minutes and consult a physician if feel uncomfortable.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

4.2 Most important symptoms and effects, both acute and delayed

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

4.3 Indication of any immediate medical attention and special treatment needed

1.Treat symptomatically.
2.Symptoms may be delayed.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Extinguish with water mist, alcohol-resistant foam, dry powder or carbon dioxide
Unsuitable extinguishing media	NO DATA

5.2 Special hazards arising from the substance or mixture

Not considered a significant fire risk.

5.3 Advice for firefighters

1.As in any fire, wear self-contained breathing apparatus（MSHA/NIOSH approved or equivalent) and full protective gear.
2.Fight fire from a safe distance, with adequate cover.
3.Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

1.Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
2.Do not touch or walk through spilled material.
3.Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
4.Ensure adequate ventilation. Remove all sources of ignition.
5.Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
6.Use personal protective equipment. Avoid breathing vapours, mist or gas.

6.2 Environmental precautions

1.Prevent product from entering drains.
2.Prevent further leakage or spillage if safe to do so.
3.If there is pollution in the sewer or waterway, please report to the local authorities.

6.3 Methods and material for containment and cleaning up

a lot of leaks:
Use an inert absorbent material such as sand or soil to absorb spillage.
Collect spilled product and place it in a sealable container or bucket for disposal.
Clean contaminated areas and objects with plenty of water and detergent.
Small amount of leakage:
Absorbing materials such as sand or soil absorb spillage.
Collect spilled product and place it in a sealable container for disposal.
Clean contaminated areas and objects with water and detergent

6.4 Reference to other sections

Treat recovered material as described in the section "Disposal considerations".

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid the formation of aerosols.
Do not breathe steam/dust.
Avoid contact - get special instructions before use.
Avoid contact with skin and eyes.
See section 8 for personal protection.
Smoking, eating and drinking areas should be prohibited during use.
Take precautions to prevent electrostatic discharge.
Provide adequate air exchange and/or exhaust in the workroom.
Dispose of rinse water in accordance with local and national regulations.
To prevent leakage or spillage, provide a suitable liquid retention system.

7.2 Conditions for safe storage, including any incompatibilities

Store in a dry, clean, cool, well-ventilated area away from direct sunlight.
Store in the original labeled container and keep the container closed when not in use.
Store the container upright, away from oxidizers, alkalis and food.
Check regularly for leaks.

7.3 Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

	Limit value - Eight hours		Limit value - Short term	
Hydrogen chloride	ppm	mg/m³	ppm	mg/m³
	5	8	10	15

8.2 Exposure controls

Appropriate engineering controls

Safety shower. Eyewash station. Ensure good ventilation of the work station.

Personal protection equipment

Eye and face protection

Safety glasses with side shields.

Skin protection

Wear suitable protective clothing.

Hand protection

Protective gloves.

Respiratory protection

[In case of inadequate ventilation] wear respiratory protection.

Thermal hazard protection

No information available.

Environmental exposure controls

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance and shape:	Colorless or light yellow liquid
odor:	Scentless
pH value:	8.0
Melting point / freezing point:	no data
Boiling point:	no data
Flash point:	no data
Upper explosion limit:	no data
Lower explosion limit:	no data
Vapor Pressure:	no data
Vapor density	no data
density	1.02
Solubility	Soluble in water
N-octanol/water partition coefficient	no data
Auto-ignition temperature	no data
Decomposition temperature	no data

9.2 Other information

Information with regard to physical hazard classes

No additional information available

Other safety characteristics

No additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

Contact with incompatible substances can cause decomposition or other chemical reactions.

10.2 Chemical Stability

Stable under the recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions when stored and handled within normal conditions of use.

10.4. Conditions to avoid

Avoid extremes of temperature and direct sunlight.
Avoid contact with incompatible materials.

10.5 Incompatible materials

Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide.

10.6 Hazardous decomposition products

Oxides of carbon and nitrogen, smoke and other toxic fumes

SECTION 11: Toxicological information

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

For Hexadecyl trimethyl ammonium bromide:

Oral LD50 (rat):	2790g/kg
Inhalation LC50 (rat)	1.8 mg/m³ air
Dermal LD50 (rat):	>5000 mL/kg bw

For 8-Hydroxyquinoline:

Oral LD50 (rat):	790g/kg
Dermal LD50 (rat):	>10000 mg/kg bw

For Concentrated hydrochloric acid:

Inhalation LC50 (rat)	45.6 mg/m³ air

Skin corrosion/irritation

Causes mild skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin allergies

According to the available information, the classification criteria are not met

Germ cell mutagenicity

No data

Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

According to the available information, the classification criteria are not met

Specific target organ toxicity (one exposure)

No data

Specific target organ system toxicity (repeated exposure)

According to the available information, the classification criteria are not met

Aspiration hazard

According to the available information, the classification criteria are not met

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties :

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

11.2.2 Other information

Potential adverse human health effects and symptoms :

No additional information available.

SECTION 12: Ecological information

12.1 Toxicity

For Hexadecyl trimethyl ammonium bromide:

Fish LC50(96h):	0.2 mg/L
Aquatic invertebrates EC50(48h):	26 μg/L
Algae and cyanobacteria EC50(72h):	4.11 μg/L

For 8-Hydroxyquinoline:

Fish LC50(96h):	45 mg/L
Aquatic invertebrates EC50(24h):	2.89 μg/L
Algae and cyanobacteria EC50(72h):	0.039 μg/L

For Concentrated hydrochloric acid:

Fish LC50(96h):	20.5 mg/L
Aquatic invertebrates EC50(48h):	0.45 μg/L
Algae and cyanobacteria EC50(72h):	0.73 μg/L

12.2 Persistence and degradability

This method for determining biodegradability is not suitable for inorganic compounds

12.3 Potential bioaccumulation

The risk of bioaccumulation of aquatic species is low

12.4 Soil migration

No data

12.5 Results of PBT and vPvB assessment

Component	Cas No.	Results of PBT and vPvB assessment (according to (EC) No 2015/830)
Triton-X100	9002-93-1	not PBT/vPvB
Cetrimonium bromide	57-09-0	not PBT/vPvB
Quinolin-8-ol	148-24-3	not PBT/vPvB
Hydrogen chloride	7647-01-0	not PBT/vPvB
Water	7732-18-5	not PBT/vPvB

12.6 Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties:

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

No additional information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
14.2. UN proper shipping name				
CORROSIVE LIQUID, N.O.S.（5% Cetrimonium bromide）	CORROSIVE LIQUID, N.O.S.（5% Cetrimonium bromide）	CORROSIVE LIQUID, N.O.S.（5% Cetrimonium bromide）	CORROSIVE LIQUID, N.O.S.（5% Cetrimonium bromide）	CORROSIVE LIQUID, N.O.S.（5% Cetrimonium bromide）
14.3. Transport hazard class(es)				
9	9	9	9	9
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: No	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	M6
Special provisions (ADR)	No

Limited quantities (ADR)	5L
Excepted quantities (ADR)	E1
Packing instructions (ADR)	P001
Mixed packing provisions (ADR)	MP19
Portable tank and bulk container instructions (ADR) :	T4
Portable tank and bulk container special provisions (ADR)	TP1、TP29
Tank code (ADR)	LGBV
Vehicle for tank carriage	AT
Transport category (ADR)	3
Special provisions for carriage - Loading, unloading and handling (ADR)	V12
Hazard identification number (Kemler No.)	90
Tunnel restriction code (ADR)	E

Air transport

PCA Excepted quantities (IATA)	E1
PCA Limited quantities (IATA)	Y964
PCA limited quantity max net quantity (IATA)	30 kg G
PCA packing instructions (IATA)	964
PCA max net quantity (IATA)	450 L
CAO packing instructions (IATA)	964
CAO max net quantity (IATA)	450 L
Special provisions (IATA)	A97, A158, A197, A215

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

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

Regulation (EU) No. 2020/878：
Regulation (EC) No. 1907/2006:
Guidance on the compilation of SDS 2015.11
EU regulation No. 2015/830

15.2 Chemical safety assessment

Please note that waste disposal should also comply with local regulations.

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms

DSL/NDSL	Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS	European Inventory of Existing Commercial chemical Substances/European List of Notified Chemical Substances
ENCS	Japanese Existing and New Chemical Substances
IECSC	Chinese Inventory of Existing Chemical Substances
KECL	Korea Existing Chemicals List
PICCS	The Philippine Inventory of Chemicals and Chemical Substances
AICS	The Australian Inventory of Chemical Substances

Abbreviations and acronyms

ED: Endocrine disruptor

Full text of H- and EUH-statements

No information available.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

END OF SDS.