SAFETY DATA SHEET

According to Regulation (EU) No. 2020/878

TI Buffer

Version	Revision Date:	Date of last issue: 2025/01/01
4.0	2025/01/01	Date of first issue: 2019/05/06

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

1.1 Product identifier

Product name: TI Buffer

Product number: 1000005623, 1000021822

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

Recommended restrictions: For research users only

1.3 Details of the supplier of the safety data sheet

Company	Shenzhen MGI Biological Electronic Technology Co., Ltd.
Address	2/F, Building 11, Beishan Industrial Zone, No.146, Beishan Road, Yantian Street, Yantian District, Shenzhen, 518083, P.R. China
Zip code	518083
Web	https://en.mgi-tech.com
E-mail	MGI-service@mgi-tech.com
TEL.	+86 4000-966-988

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 4000-966-988

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Acute toxicity-inhalation	Category 4
Serious eye damage-eye irritation	Category 2
Reproductive toxicity	Category 1B

Adverse physicochemical, human health and environment

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms:

Signal word: Danger

Hazard statements:

H319 : Causes serious eye irritation.

H332 :Harmful if inhaled.

H360 : May damage fertility or the unborn child.

Precautionary statements:

Prevention:

P201 : Obtain special instructions before use.

P202 : Do not handle until all safety precautions have been read and understood.

P261 : Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 : Wash ... thoroughly after handling.

P271 : Use only outdoors or in a well-ventilated area.

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

Response:

P304+P340 : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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.

P312 : Call a POISON CENTER or doctor/physician you feel unwell.

P321 : Specific treatment (see ... on this label).

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

Storage:

P405 : Store locked up.

Disposal:

P501 : Dispose of contents/container to ...

EUH-statements:

No CLP disposal statements.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent,bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

ingredient	CAS-No.	EC No.	Concentration (% w/w)	Classification
Water	7732-18-5	231-791-2	45%-55%	Not- Classified
N,N-dimethylformamide dimethyl formamide	68-12-2	200-679-5	45%-55%	Acute toxicity Category 4 Eye irritation Category 2 Reproductive toxicity Category 1
Magnesium chloride	7786-30-3	232-094-6	0.1%-1%	Not- Classified
Other components	-	-	0.1%-1%	Not- Classified

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

No additional information available.

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:	Transparent colorless liquid
odor:	Mild, characteristic smell
pH value:	No data
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	No data
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 Magnesium chloride:

Oral LD50(rats):	>5000 mg/kg bw
Dermal LD50(rabbit):	>2000 mL/kg bw

For Dimethyl formamide:

Oral LD50(rats):	2800 mg/kg bw
Dermal LD50(rabbit):	1500 mL/kg bw

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Respiratory or skin allergies

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

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

Based on available data, the classification criteria are not met

Specific target organ toxicity (single expos)

Based on available data, the classification criteria are not met.

Specific target organ system toxicity (repeated exposure)

Based on available data, the classification criteria are not met

Aspiration hazard

Based on available data, the classification criteria are not met

11.2 Information on other hazards

Causes serious eye irritation.

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.

11.5 Germ cell mutagenicity

May damage fertility or the unborn child.

11.6 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.

11.7 Reproductive toxicity

11.8 Specific target organ toxicity (one exposure)

11.9 Specific target organ system toxicity (repeated exposure)

11.10 Aspiration hazard

SECTION 12: Ecological information

12.1 Toxicity

For Magnesium chloride:

Fish LC50 :	2119.5 mg/L/96h
Aquatic Invertebrates EC50/LC50 :	548.4 mg/L/48h
aquatic algae and cyanobacteria EC50:	100 mg/L/72h

For Dimethyl formamide:

Fish LC50 :	7100mg/L/96h
Aquatic Invertebrates EC50/LC50 :	100 mg/L/48h
aquatic algae and cyanobacteria EC50:	500 mg/L

12.2 Persistence and degradability

No data available

12.3 Potential bioaccumulation

No data available

12.4 Soil migration

No data available

12.5 Results of PBT and vPvB assessment

Component	Cas No.	Results of PBT and vPvB assessment （according to (EC) No 2015/830)
Water	7732-18-5	not PBT/vPvB
N,N-dimethylformamide dimethyl formamide	68-12-2	not PBT/vPvB
Magnesium chloride	7786-30-3	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				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

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.