

Safety Data Sheet This safety data sheet complies with the requirements of: JIS Z 7253:2019

Revision Date 2021-06-16

Revision Number 6

	1. Identificatio	ท
Product Name	Lysis Buffer (4X)	
Product Code	SD0585	
CAS-No	-	
Registration number	No information available	
Details of the supplier of the safe	ety data sheet	
Supplier		
Japan:		
Takara Bio Inc.		
Nojihigashi 7-4-38		
Kusatsu, Shiga 525-0058, Japan		
Phone: +81.77.565.6972 Web: www.takara-bio.com		
China:		
Takara Biomedical Technology (Be	ijing) Co., Ltd.	
Life Science Park, 22 KeXueYuan I		
Beijing 102206, China		
Phone: +86 10 8072 0980		
Web: www.takarabiomed.com.cn		
Recommended use of the chemic Identified uses	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use	
Emergency telephone number Recommended use of the chemic Identified uses Restrictions on use No informatio	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use	9667 (international).
Recommended use of the chemic Identified uses Restrictions on use No information	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available	9667 (international).
Recommended use of the chemic dentified uses	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available	9667 (international).
Recommended use of the chemic dentified uses Restrictions on use No information GHS Classification Acute toxicity - Oral	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available	0667 (international).
Recommended use of the chemic dentified uses Restrictions on use No information GHS Classification Acute toxicity - Oral Acute toxicity - Dermal	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available	0667 (international).
Recommended use of the chemic dentified uses Restrictions on use No information GHS Classification Acute toxicity - Oral Acute toxicity - Dermal Acute toxicity - Inhalation (Gases)	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available	0667 (international). a in diagnostic procedures ication Classification not possible Classification not possible
Recommended use of the chemic dentified uses Restrictions on use No information GHS Classification Acute toxicity - Oral Acute toxicity - Dermal Acute toxicity - Inhalation (Gases) Acute toxicity - Inhalation (Vapors)	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available 2. Hazard(s) identif	0667 (international). e in diagnostic procedures Fication Classification not possible Classification not possible Classification not possible
Recommended use of the chemic dentified uses Restrictions on use No informatio GHS Classification Acute toxicity - Oral Acute toxicity - Dermal Acute toxicity - Inhalation (Gases) Acute toxicity - Inhalation (Vapors) Acute toxicity - Inhalation (Dusts/Mi	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available 2. Hazard(s) identif	20667 (international). a in diagnostic procedures ication Classification not possible Classification not possible Classification not applicable Classification not possible
Recommended use of the chemic dentified uses Restrictions on use No informatio GHS Classification Acute toxicity - Oral Acute toxicity - Dermal Acute toxicity - Inhalation (Gases) Acute toxicity - Inhalation (Vapors) Acute toxicity - Inhalation (Dusts/Mi Skin corrosion/irritation	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available 2. Hazard(s) identif	2667 (international). a in diagnostic procedures ication Classification not possible Classification not possible Classification not applicable Classification not possible Classification not possible Classification not possible
Recommended use of the chemic dentified uses Restrictions on use No informatio GHS Classification Acute toxicity - Oral Acute toxicity - Dermal Acute toxicity - Inhalation (Gases) Acute toxicity - Inhalation (Vapors) Acute toxicity - Inhalation (Dusts/Mi Skin corrosion/irritation Serious eye damage/eye irritation	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available 2. Hazard(s) identif	2667 (international). a in diagnostic procedures ication Classification not possible Classification not possible Classification not applicable Classification not possible Classification not possible Classification not possible Classification not possible
Recommended use of the chemic dentified uses Restrictions on use No information GHS Classification Acute toxicity - Oral Acute toxicity - Dermal Acute toxicity - Inhalation (Gases) Acute toxicity - Inhalation (Vapors) Acute toxicity - Inhalation (Dusts/Mi Skin corrosion/irritation Serious eye damage/eye irritation Respiratory sensitization	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available 2. Hazard(s) identif	2667 (international). a in diagnostic procedures Fication Classification not possible Classification not possible Classification not applicable Classification not possible Classification not possible
Recommended use of the chemic dentified uses Restrictions on use No informatio GHS Classification Acute toxicity - Oral Acute toxicity - Dermal Acute toxicity - Inhalation (Gases) Acute toxicity - Inhalation (Vapors) Acute toxicity - Inhalation (Dusts/Mi Skin corrosion/irritation	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available 2. Hazard(s) identif	2667 (international). a in diagnostic procedures Fication Classification not possible Classification not possible Classification not applicable Classification not possible Classification not possible Classification not possible Classification not possible Classification not possible Classification not possible Classification not possible
Recommended use of the chemic dentified uses Restrictions on use No information GHS Classification Acute toxicity - Oral Acute toxicity - Dermal Acute toxicity - Inhalation (Gases) Acute toxicity - Inhalation (Vapors) Acute toxicity - Inhalation (Dusts/Mi Skin corrosion/irritation Serious eye damage/eye irritation Respiratory sensitization Skin sensitization Germ cell mutagenicity	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available 2. Hazard(s) identif	20667 (international). a in diagnostic procedures Classification not possible Classification not possible
Recommended use of the chemic dentified uses Restrictions on use No information GHS Classification Acute toxicity - Oral Acute toxicity - Dermal Acute toxicity - Inhalation (Gases) Acute toxicity - Inhalation (Vapors) Acute toxicity - Inhalation (Dusts/Mi Skin corrosion/irritation Serious eye damage/eye irritation Respiratory sensitization Skin sensitization Germ cell mutagenicity Carcinogenicity	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available 2. Hazard(s) identif	20667 (international). a in diagnostic procedures Classification not possible Classification not possible
Recommended use of the chemic dentified uses Restrictions on use No information GHS Classification Acute toxicity - Oral Acute toxicity - Dermal Acute toxicity - Inhalation (Gases) Acute toxicity - Inhalation (Vapors) Acute toxicity - Inhalation (Dusts/Mi Skin corrosion/irritation Serious eye damage/eye irritation Respiratory sensitization Skin sensitization	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available 2. Hazard(s) identif	20667 (international). a in diagnostic procedures Classification not possible Classification not possible
Recommended use of the chemic Identified uses Restrictions on use No information GHS Classification Acute toxicity - Oral Acute toxicity - Dermal Acute toxicity - Inhalation (Gases) Acute toxicity - Inhalation (Uapors) Acute toxicity - Inhalation (Dusts/Mi Skin corrosion/irritation Serious eye damage/eye irritation Skin sensitization Germ cell mutagenicity Carcinogenicity Reproductive toxicity	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available 2. Hazard(s) identif	20667 (international). a in diagnostic procedures Classification not possible Classification not possible
Recommended use of the chemic Identified uses Restrictions on use No information GHS Classification Acute toxicity - Oral Acute toxicity - Dermal Acute toxicity - Inhalation (Gases) Acute toxicity - Inhalation (Vapors) Acute toxicity - Inhalation (Dusts/Mi Skin corrosion/irritation Serious eye damage/eye irritation Skin sensitization Germ cell mutagenicity Carcinogenicity Reproductive toxicity Effects on or via lactation Specific target organ toxicity (single	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available 2. Hazard(s) identif (ists) (ists) (ists) (ists)	D667 (international). a in diagnostic procedures Classification not possible Classification not possible Classification not possible
Recommended use of the chemic Identified uses Restrictions on use No information Acute toxicity - Oral Acute toxicity - Dermal Acute toxicity - Inhalation (Gases) Acute toxicity - Inhalation (Vapors) Acute toxicity - Inhalation (Dusts/Mi Skin corrosion/irritation Serious eye damage/eye irritation Skin sensitization Germ cell mutagenicity Carcinogenicity Reproductive toxicity Effects on or via lactation Specific target organ toxicity (single Specific target organ toxicity (repeating)	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available 2. Hazard(s) identif (ists) (ists) (ists) (ists)	20667 (international). a in diagnostic procedures Fication Classification not possible Classification not possible
Recommended use of the chemic dentified uses Restrictions on use No information GHS Classification Acute toxicity - Oral Acute toxicity - Dermal Acute toxicity - Inhalation (Gases) Acute toxicity - Inhalation (Vapors) Acute toxicity - Inhalation (Dusts/Mi Skin corrosion/irritation Serious eye damage/eye irritation Serious eye damage/eye irritation Skin sensitization Germ cell mutagenicity Carcinogenicity Reproductive toxicity Effects on or via lactation Specific target organ toxicity (single Specific target organ toxicity (repea Aspiration hazard	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available 2. Hazard(s) identif (ists) (ists) (ists) (ists)	0667 (international). a in diagnostic procedures fication Classification not possible
Recommended use of the chemic Identified uses Restrictions on use No information Acute toxicity - Oral Acute toxicity - Dermal Acute toxicity - Inhalation (Gases) Acute toxicity - Inhalation (Vapors) Acute toxicity - Inhalation (Dusts/Mi Skin corrosion/irritation Serious eye damage/eye irritation Skin sensitization Germ cell mutagenicity Carcinogenicity Reproductive toxicity Effects on or via lactation Specific target organ toxicity (single Specific target organ toxicity (repeating)	1-800-633-8253 (US) or 801-629-0 cal and restrictions on use For research use only. Not for use on available 2. Hazard(s) identif (ists) (ists) (ists) (ists)	20667 (international). a in diagnostic procedures Fication Classification not possible Classification not possible

GHS label elements

Hazard Statements

Harmful to aquatic life

Precautionary statements Prevention

Avoid release to the environment

Response

Not applicable

Storage

Not applicable

Disposal

· Dispose of contents/container to an approved waste disposal plant

Other hazards

No information available.

3. Composition/information on ingredients

Pure substance/mixture CAS-No

Mixture

0/10/110						
Chemical name	CAS No	Weight-%	ENCS Inventory	ENCS Number	ISHL Inventory	ISHL No
TRADE SECRET	-	1 - 5	Existing	Listed	Existing	Listed
TRADE SECRET	-	1 - 5	Existing	Listed	Existing	Listed

Pollutant Release and Transfer Registry (PRTR)

Not applicable

Industrial Safety and Health Law

ISHL Notifiable Substances Not applicable

Harmful Substances Whose Names Are to be Indicated on the Label Not applicable

Poisonous and Deleterious Substances Control Law

Not applicable

4. First-aid measures		
In case of inhalation	Remove to fresh air.	
In case of skin contact	Wash skin with soap and water.	
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.	
In case of ingestion	Clean mouth with water and drink afterwards plenty of water.	
Most important symptoms/effects, acute and delayed	No information available.	
Note to physicians	Treat symptomatically.	

5. Fire-fighting measures			
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.		
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.		
Specific hazards arising from the chemical	No information available.		
Special Extinguishing Media Large Fire	Cool drums with water spray. CAUTION: Use of water spray when fighting fire may be inefficient.		
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.		
	6. Accidental release measures		
Personal precautions, protective equipment and emergency procedures	6. Accidental release measures Ensure adequate ventilation.		
equipment and emergency			
equipment and emergency procedures	Ensure adequate ventilation.		
equipment and emergency procedures For emergency responders	Ensure adequate ventilation. Use personal protection recommended in Section 8.		
equipment and emergency procedures For emergency responders Environmental precautions	Ensure adequate ventilation. Use personal protection recommended in Section 8. See Section 12 for additional Ecological Information.		

7. Handling and storage

<u>Handling</u> Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice.
<u>Storage</u> Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls/personal protection

Engineering controls	Showers Eyewash stations Ventilation systems.
Exposure guidelines	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Biological occupational exposure limits	This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies
Environmental exposure controls Personal Protective Equipment	No information available.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Eye/face protection Skin and body protection	No special protective equipment required. No special protective equipment required.

available available available

available available available available

available available available available available

available available available

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear, colorless	
Physical state	Liquid	
Color	Clear	
Odor	Unpleasant	
Odor Threshold	No information available	
Property_	Values	Remarks • Method
Melting point / freezing point	No data available	No information availab
Boiling point/boiling range (°C)	No data available	No information availab
Flammability (solid, gas)	No data available	No information availab
Upper/lower flammability or explo	sive limits	
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Flash point	No data available	ASTM D 56
Evaporation Rate	No data available	No information availab
Autoignition temperature	No data available	No information availab
Decomposition temperature	No data available	No information availab
рН	No data available	No information availab
Viscosity		
Kinematic viscosity	No data available	No information availab
Dynamic Viscosity		No information availab
Water solubility	No data available	No information availab
Solubility in other solvents	No data available	No information availab
Partition Coefficient	No data available	No information availab
(n-octanol/water)		
Vapor pressure	No data available	No information availab
Vapor density	No data available	No information availab
Relative density	No data available	No information availab
Particle characteristics		
Particle Size	No data available	Not applicable
Particle Size Distribution	No data available	Not applicable
Other information		
Explosive properties	No information available	
Oxidizing properties	No information available	

10. Stability and reactivity

Reactivity No information available. Chemical stability Stable under normal conditions. Possibility of hazardous reactions None under normal processing. Incompatible materials None known based on information supplied. Hazardous Decomposition Products None known based on information supplied. **Explosion Data** Sensitivity to static discharge None.

Sensitivity to mechanical impact None.

11. Toxicological information

Acute toxicity

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
TRADE SECRET	= 2590 mg/kg (Rat)	= 1780 µL/kg (Rabbit)	-
TRADE SECRET	= 2600 mg/kg (Rat)	-	-
Abbreviations and acronyms Rat: Rat Rabbit: Rabbit			
Symptoms	No information available.		
Product Information			
Ingestion	Specific test data for the s	substance or mixture is not availa	ble.
Inhalation	Specific test data for the s	substance or mixture is not availa	ble.
Skin contact	Specific test data for the s	substance or mixture is not availa	ble.
Eye contact	Specific test data for the s	substance or mixture is not availa	ble.
Skin corrosion/irritation	Based on available data, t	the classification criteria are not n	net. Classification not possible.
Serious eye damage/eye irritatio	n Based on available data, t	the classification criteria are not n	net. Classification not possible.
Respiratory or skin sensitization	Classification not possible		
Germ cell mutagenicity	Based on available data, t	the classification criteria are not n	net. Classification not possible.
Carcinogenicity	Based on available data, t	the classification criteria are not n	net. Classification not possible.
Reproductive toxicity	Based on available data, t	the classification criteria are not n	net. Classification not possible.
STOT - single exposure	Based on available data, t	the classification criteria are not n	net. Classification not possible.
STOT - repeated exposure	Based on available data, t	the classification criteria are not n	net. Classification not possible.
Aspiration hazard	Based on available data, t	the classification criteria are not n	net. Classification not possible.

12. Ecological information			
Ecotoxicity	Harmful to aquatic life.		
Percentage for unknown hazards	0.14435 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.		

Chemical name	Algae/aquatic plants	Fish	Crustacea
TRADE SECRET	2500: 72 h Desmodesmus subspicatus mg/L EC50	750 - 1020: 96 h Pimephales promelas mg/L LC50 static	825: 48 h Daphnia magna mg/L EC50
		1060: 96 h Lepomis macrochirus mg/L LC50 static	83: 48 h Daphnia magna mg/L EC50 Static

Persistence and degradability	No information available.		
Bioaccumulation	No information available.		
Hazardous to the ozone layer Other adverse effects Endocrine Disruptor Information	Classification not possible. Bas No information available.	ed on available data, the class	sification criteria are not met.
Chemical name	EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation	EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances	Endocrine disrupting potential
TRADE SECRET	Endocrine disrupting properties	-	-
	13. Disposal cons	siderations	
Waste from residues/unused products	Dispose of in accordance with environmental legislation.	local regulations. Dispose of w	aste in accordance with
Contaminated packaging	Do not reuse empty containers		
	14. Transport in	formation	
IMDG	Not regulated		
ADR	Not regulated		
IATA_	Not regulated		
<u>Japan</u>	Not regulated		
	15. Regulatory in	formation	
National regulations			
Pollutant Release and Transfer Reg	jistry (PRTR)		
Industrial Safety and Health Law Not applicable ISHL Notifiable Substances Not applicable			
Poisonous and Deleterious Substan	nces Control Law		
Fire Service Law: Not applicable			
Act on the Evaluation of Chemical S The table below indicates ingredients			

Chemical name	CAS No	Chemical Substances Control Law

SD0585 - Lysis Buffer (4X)

TRADE SECRET	Priority assessment chemical substance

Act on Prevention of Marine Pollution and Maritime Disaster Not applicable

International Regulations

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

IECSC

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

16. Other information

Revision Date Revision Note

2021-06-16 No information available.

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend	Section 8: EXPOSURE CONTROLS/PERSO	NAL PROTECTION	
TWA	Time weighted average	Ceiling	Maximum limit value
*	Skin designation	+	Sensitizers

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Chemicals Agency

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Disclaimer

This SDS complies with the requirements of JIS Z 7253:2019 (Japan). 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.

Notice to Purchaser:

Our products are to be used for research purposes only. They may not be used for any other purpose, including, but not limited to, use in drugs, in vitro diagnostic purposes, therapeutics, or in humans. Our products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products or to provide a service to third parties without our prior written approval. Your use of this product is also subject to compliance with the licensing requirements described on the product's web page. It is your responsibility to review, understand and adhere to any restrictions imposed by these statements. All other marks are the property of their respective owners. Certain trademarks may not be registered in all jurisdictions.

End of Safety Data Sheet