



Safety Data Sheet

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

Revision Date 2021-02-07
Revision Number 6

1. Identification

Product Name Definitive Endoderm Differentiation Day 0
Product Code SL0006
CAS-No 7732-18-5
Registration number No information available
Details of the supplier of the safety 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 (Beijing) Co., Ltd.

Life Science Park, 22 KeXueYuan Road, Changping District,

Beijing 102206, China

Phone: +86 10 8072 0980

Web: www.takarabiomed.com.cn

Emergency telephone number In case of emergency, call PERS (Professional Emergency Resource Services)
1-800-633-8253 (US) or 801-629-0667 (international).

Recommended use of the chemical and restrictions on use

Identified uses For research use only. Not for use in diagnostic procedures

Restrictions on use No information available

2. Hazard(s) identification

GHS Classification

Not classified

Acute toxicity - Oral	Classification not possible
Acute toxicity - Dermal	Classification not possible
Acute toxicity - Inhalation (Gases)	Classification not applicable
Acute toxicity - Inhalation (Vapors)	Classification not possible
Acute toxicity - Inhalation (Dusts/Mists)	Classification not possible
Skin corrosion/irritation	Classification not possible
Serious eye damage/eye irritation	Classification not possible
Respiratory sensitization	Classification not possible
Skin sensitization	Classification not possible
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Effects on or via lactation	No effects on or via lactation
Specific target organ toxicity (single exposure)	Classification not possible
Specific target organ toxicity (repeated exposure)	Classification not possible
Aspiration hazard	Classification not possible
Acute aquatic toxicity	Classification not possible
Chronic aquatic toxicity	Classification not possible
Ozone	Classification not possible

GHS label elements**Hazard Statements**

Not classified

Prevention

- Not applicable

Response

- Not applicable

Storage

- Not applicable

Disposal

- Not applicable

Other hazards

No information available.

3. Composition/information on ingredients

Pure substance/mixture

Mixture

CAS-No

7732-18-5

Chemical name	CAS No	Weight-%	ENCS Inventory	ENCS Number	ISHL Inventory	ISHL No
TRADE SECRET	Trade secret	< 0.1	Existing	Listed	Existing	Listed
TRADE SECRET	Trade secret	< 0.1	Existing	Listed	Existing	Listed

Pollutant Release and Transfer Registry (PRTR)

Not applicable

Industrial Safety and Health LawISHL 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	Ensure adequate ventilation.
For emergency responders	Use personal protection recommended in Section 8.
Environmental precautions	See Section 12 for additional Ecological Information.
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and storage

Handling	
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice.
Storage	
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.

Chemical name	Japan Society of Occupational Health	ISHL Working Environmental Evaluation Standards - Administrative Control Levels	ACGIH TLV
TRADE SECRET	-	-	STEL 10 mg/m ³ TWA: 5 mg/m ³
TRADE SECRET	TWA: 0.01 mg/m ³ 1S+ ISHL/ACL: 0.1 mg/m ³ 2A+ C1	0.1mg/m ³	TWA: 0.1 mg/m ³

C2B	
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	No information available.
Personal Protective Equipment	
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	No special protective equipment required.
Skin and body protection	No special protective equipment required.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Frozen liquid
Physical state	Liquid
Color	No information available
Odor	No information available
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point		No information available
Boiling point/boiling range (°C)		No information available
Flammability (solid, gas)		No information available
Upper/lower flammability or explosive limits		
Upper flammability limit:		
Lower flammability limit:		
Flash point		ASTM D 56
Evaporation Rate		No information available
Autoignition temperature	215 °C / 419 °F	No information available
Decomposition temperature		No information available
pH		No information available
Viscosity		
Kinematic viscosity		No information available
Dynamic Viscosity		No information available
Water solubility		No information available
Solubility in other solvents		No information available
Partition Coefficient (n-octanol/water)		No information available
Vapor pressure		No information available
Vapor density		No information available
Relative density		No information available
Particle characteristics		
Particle Size		Not applicable
Particle Size Distribution		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

0.91413 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
0.91413 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
0.91413 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
0.91413 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
0.91413 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
TRADE SECRET	= 3500 mg/kg (Rat)	-	-
TRADE SECRET	= 264 mg/kg (Rat)	-	-

Symptoms	No information available.
Product Information	
Ingestion	Specific test data for the substance or mixture is not available.
Inhalation	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin corrosion/irritation	Based on available data, the classification criteria are not met. Classification not possible.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met. Classification not possible.
Respiratory or skin sensitization	Classification not possible.
Germ cell mutagenicity	Based on available data, the classification criteria are not met. Classification not possible.
Carcinogenicity	Based on available data, the classification criteria are not met. Classification not possible.

Chemical name	Japan	IARC
TRADE SECRET	1A	Group 1

Reproductive toxicity	Based on available data, the classification criteria are not met. Classification not possible.
STOT - single exposure	Based on available data, the classification criteria are not met. Classification not possible.
STOT - repeated exposure	Based on available data, the classification criteria are not met. Classification not possible.

Aspiration hazard Based on available data, the classification criteria are not met. Classification not possible.

12. Ecological information

Ecotoxicity Classification not possible.

Percentage for unknown hazards 0.91413 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Crustacea
TRADE SECRET	-	15: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 18: 96 h <i>Pimephales promelas</i> mg/L LC50 static	-
TRADE SECRET	0.75: 72 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50	2.594 - 3.279: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 32.36 - 41.04: 96 h <i>Poecilia reticulata</i> mg/L LC50 semi-static 5.79 - 6.54: 96 h <i>Cyprinus carpio</i> mg/L LC50 semi-static 8.6 - 13.6: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through 1.28: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 semi-static 47.58: 96 h <i>Cyprinus carpio</i> mg/L LC50 static	1: 48 h <i>Daphnia magna</i> mg/L EC50

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Hazardous to the ozone layer Classification not possible. Based on available data, the classification criteria are not met.
Other adverse effects No information available.

13. Disposal considerations

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. Transport information

IMDG Not regulated

ADR Not regulated

IATA Not regulated

Japan Not regulated

15. Regulatory information

National regulations**Pollutant Release and Transfer Registry (PRTR)**

Not applicable

Industrial Safety and Health Law**ISHL Notifiable Substances**

Not applicable

ISHL Working Environmental Evaluation Standards - Administrative Control Levels

Subject to working environment measurements (related to Industrial Safety and Health Law Enforcement Order article 21 and Working Environment Evaluation Standards - administrative control levels). For further specification, refer to section 8 of the SDS.

Poisonous and Deleterious Substances Control Law

Not applicable

Fire Service Law:

Not applicable

Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (CSCL)

Not applicable

Chemical name	CAS No	Chemical Substances Control Law
TRADE SECRET		Priority assessment chemical substance
TRADE SECRET		Priority assessment chemical substance

Act on Prevention of Marine Pollution and Maritime Disaster

Not applicable

Labor Standards Act

Occupational illnesses caused by chemical substances - Labor Standards Act article 75, Enforcement Ordinance article 35 and Notification Designating Elements and Compounds of Chemical Substances and Occupational Illnesses Table 1-2 item 4-1

Water Pollution Control Act

Hazardous substance per Water Pollution Control Law article 2 and Enforcement Order article 2

Designated substance may cause adverse effects to human health or the living environment per Water Pollution Control Law article 2 and Enforcement Order article 3-3

Waste Management and Public Cleansing Law

Specially Controlled Industrial Waste per the Waste Management and Public Cleansing Law, article 2, and Cabinet Order, article 2-4

Sewerage Act

Sewerage Act article 12-2 and Enforcement Order article 9-4

Waterworks (Water Supply) Act

Waterworks (Water Supply) Act article 4 legally binding water quality standards

Waterworks (Water Supply) Act article 4 water quality guidelines

Air Pollution Control Law

Air pollutants with regulated emissions standards, Air Pollution Control Act article 3

Volatile organic compound per Air Pollution Control Law article 2, paragraph 4

Hazardous air pollutants (HAPs) per Air Pollution Control Law article 2, paragraph 1, item 3 and Enforcement Order article 1

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/NDL - 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 2021-02-07
Revision Note No information available.

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

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	Time weighted average	Ceiling	Maximum limit value
*	Skin designation	+	Sensitizers
**	Hazard Designation		

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

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End of Safety Data Sheet