



Safety Data Sheet

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

Revision Date 2021-02-06
Revision Number 10

1. Identification

Product Name Labeling Safe Buffer
Product Code SD1814
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

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	Category 1B
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	Category 3
Chronic aquatic toxicity	Category 3
Ozone	Classification not possible

GHS label elements

Signal word Danger

Hazard Statements

May cause cancer
Harmful to aquatic life with long lasting effects

Prevention

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Wear protective gloves/protective clothing/eye protection/face protection
- Avoid release to the environment

Response

- IF exposed or concerned: Get medical advice/attention

Storage

- Store locked up

Disposal

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

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
Cobalt(II) chloride hexahydrate	7791-13-1	0.1 - 1	No information available		No information available	(1)-207

This product contains ≥ 0.1 - $< 1.0\%$ of substance(s) that are classified for Respiratory sensitization Category 1/1B. This product contains ≥ 0.1 - $< 1.0\%$ of substance(s) that are classified for Skin sensitization Category 1/1B. This product contains ≥ 0.1 - $< 0.3\%$ of substance (s) that are classified for Reproductive toxicity Category 1/1A/1B/Lactation.

Pollutant Release and Transfer Registry (PRTR)

Not applicable

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

ISHL Notifiable Substances - information (safety data sheet) to be supplied; Industrial Safety and Health Law enforcement order Table 9 (related to Industrial Safety and Health Law article 57-2 and ISHL Ordinance Article 34-2-4)

Chemical name	CAS No	Category	Ordinance number	Content rate %
Cobalt(II) chloride hexahydrate	7791-13-1	ISHL Notifiable Substances	172	<10

Harmful Substances Whose Names Are to be Indicated on the Label

Harmful Substances - names to be indicated on the label; Industrial Safety and Health Law enforcement order Table 9 (related to Industrial Safety and Health Law article 57 and ISHL Ordinance Article 33)

Chemical name	CAS No	Category	Ordinance number	Content rate %
Cobalt(II) chloride hexahydrate	7791-13-1	Harmful Substances Whose Names Are to be Indicated on the Label	172	<10

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

Chemical name	Japan Society of Occupational Health	ISHL Working Environmental Evaluation Standards - Administrative Control Levels	ACGIH TLV
Cobalt(II) chloride hexahydrate 7791-13-1	TWA: 0.05 mg/m ³ 1S+ ISHL/ACL: 0.02 mg/m ³ 1A+ C2B	0.02mg/m ³	TWA: 0.02 mg/m ³

Biological occupational exposure limits

Chemical name	Japan Society of Occupational Health	ACGIH
Cobalt(II) chloride hexahydrate 7791-13-1	3 µg/L - blood (Cobalt) - within 2 h prior to end of shift at end of work week 35 µg/L - urine (Cobalt) - within 2 h prior to end of shift at end of work week	15

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**

Aqueous solution

Physical state

Liquid

Color

No information available

Odor

Odorless

Odor Threshold

No information available

Property**Values****Remarks • Method****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

392.8 °C / 739 °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**

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

ATEmix (oral)	99,920.70 mg/kg
ATEmix (dermal)	79,381.40 mg/kg
ATEmix (inhalation-dust/mist)	21.8295 mg/l

- 5.21282 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 5.21282 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 17.82282 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 17.82282 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 5.21282 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Cobalt(II) chloride hexahydrate	= 766 mg/kg (Rat)	-	-

Abbreviations and acronyms

Rat: Rat

Symptoms	No information available.
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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

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	Japan	IARC
Cobalt(II) chloride hexahydrate 7791-13-1	2	Group 2B

Legend

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

Reproductive toxicity	Based on available data, the classification criteria are not met. Classification not possible.
Target organ effects	Kidney. Respiratory system. Eyes. Skin.
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. Based on available data, the classification criteria are not met.
Percentage for unknown hazards	0.62282 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.
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.
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Contaminated packaging Do not reuse empty containers.

14. Transport information

IMDG

Notes	No components found suitable for Technical Name.
UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III, Marine Pollutant
Transport hazard class(es)	9
Packing group	III
Marine pollutant	P
EmS-No	F-A, S-F
Special Provisions	274, 335, 969

ADR

Notes	No components found suitable for Technical Name.
UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III, (-)
Transport hazard class(es)	9
Packing group	III
Environmental hazards	Yes
ERG Code	9L
Special Provisions	274, 335, 601, 375

IATA

Notes	No components found suitable for Technical Name.
UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III
Transport hazard class(es)	9
Packing group	III
Special Provisions	A97, A158, A197
ERG Code	9L

Japan

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III
Transport hazard class(es)	9
Packing group	III
Environmental Hazard	Yes
Special Provisions	274, 335

15. Regulatory information

National regulations

Pollutant Release and Transfer Registry (PRTR)

Not applicable

Industrial Safety and Health Law

Harmful Substances Whose Names Are to be Indicated on the Label

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ISHL Notifiable Substances

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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

Ship (Marine Transportation) Safety Act

See section 14 for more information

Civil Aeronautics Act

See section 14 for more information

Act on Prevention of Marine Pollution and Maritime Disaster

Not applicable

Act on Port Regulation Law

See section 14 for more information

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

Air Pollution Control Law

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 2021-02-06

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

Disclaimer

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End of Safety Data Sheet