

# Safety Data Sheet



Revision Date 2021-02-05

Revision Number 9

## 1. Identification

### Product identifier

**Product Name** B/B Homodimerizer

### Other means of identification

**Product Code** 635060

**UN number or ID number** UN1993

**Synonyms** No information available

### Recommended use of the chemical and restrictions on use

**Identified uses** No information available

**Restrictions on use** No information available

### Details of the supplier of the safety data sheet

#### Supplier

USA:

Takara Bio USA, Inc.

1290 Terra Bella Avenue

Mountain View, CA 94043

Phone: 800.662.2566/888.251.6618

Web: www.takarabio.com

### Emergency telephone number

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

## 2. Hazard(s) identification

### Classification

Carcinogenicity	Category 1A
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### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

**Danger**

### Hazard statements

May cause cancer



**Appearance** Clear, colorless      **Physical state** Liquid      **Odor** Characteristic

**Precautionary Statements - 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

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other information**

May be harmful if inhaled. Toxic to aquatic life.

### 3. Composition/information on ingredients

**Substance**

Not applicable.

**Mixture**

Chemical name	CAS No	Weight-%	Trade secret
Ethanol-200 Proof	64-17-5	60 - 100	*

### 4. First-aid measures

**Description of first aid measures**

<b>General advice</b>	IF exposed or concerned: Get medical advice/attention.
<b>Inhalation</b>	Remove to fresh air.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**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.  
**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical** No information available.

**Explosion Data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Special protective equipment 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

**Personal precautions** Ensure adequate ventilation.

**Other information** Refer to protective measures listed in Sections 7 and 8.

### Methods and material for containment and cleaning up

**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.

## 7. Handling and storage

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place.

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Ethanol-200 Proof	STEL 1000 ppm	TWA: 1000 ppm	IDLH: 3300 ppm

64-17-5		TWA: 1900 mg/m <sup>3</sup> (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>
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**Appropriate engineering controls**

**Engineering controls**                      Showers  
     Eyewash stations  
     Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      No special protective equipment required.

**Hand protection**                              Wear suitable gloves.

**Skin and body protection**                      Wear suitable protective clothing.

**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.

**General hygiene considerations**                      Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

## 9. Physical and chemical properties

**Information on basic physical and chemical properties**

**Physical state**                                      Liquid  
**Appearance**                                      Clear, colorless  
**Color**    Clear  
**Odor**    Characteristic  
**Odor Threshold**                                      No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>		None known
<b>Melting point / freezing point</b>	No data available	None known
<b>Boiling point/boiling range (°C)</b>	No data available	None known
<b>Flash point</b>	No data available	Open cup
<b>Evaporation Rate</b>	no data available	None known
<b>Flammability (solid, gas)</b>	no data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability limit:</b>	No data available	
<b>Lower flammability limit:</b>	No data available	
<b>Vapor pressure</b>	no data available	None known
<b>Vapor density</b>	No data available	None known
<b>Relative density</b>		None known
<b>Water solubility</b>	No data available	None known
<b>Solubility in other solvents</b>	no data available	None known
<b>Partition coefficient</b>	no data available	None known
<b>Autoignition temperature</b>	363 °C / 685.4 °F	None known
<b>Decomposition temperature</b>		None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic Viscosity</b>	no data available	None known

**Other information**

**Explosive properties**                              No information available  
**Oxidizing properties**                              No information available  
**Softening point**                                      No information available  
**Molecular Weight**                                      No information available  
**VOC Content (%)**                                      No information available

Liquid Density No information available  
Bulk Density 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.  
**Conditions to Avoid** None known based on information supplied.  
**Incompatible materials** None known based on information supplied.  
**Hazardous decomposition products** None known based on information supplied.

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

**Inhalation** May be harmful if inhaled.  
**Eye contact** Specific test data for the substance or mixture is not available.  
**Skin contact** Specific test data for the substance or mixture is not available.  
**Ingestion** Specific test data for the substance or mixture is not available.

### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

### Acute toxicity

#### Numerical measures of toxicity

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

ATEmix (oral) 7,060.00 mg/kg  
ATEmix (inhalation-dust/mist) 124.70 mg/l

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ethanol-200 Proof 64-17-5	= 7060 mg/kg ( Rat )	-	= 124.7 mg/L ( Rat ) 4 h

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Skin corrosion/irritation** No information available.  
**Serious eye damage/eye irritation** No information available.  
**Respiratory or skin sensitization** No information available.  
**Germ cell mutagenicity** No information available.

**Carcinogenicity** Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

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

Chemical name	ACGIH	IARC	NTP	OSHA
Ethanol-200 Proof 64-17-5	A3	Group 1	Known	X

**Legend**

**ACGIH (American Conference of Governmental Industrial Hygienists)**

A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans

**NTP (National Toxicology Program)**

Known - Known Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Target organ effects** Liver, Respiratory system, Eyes, Skin, Central nervous system, Blood, Reproductive system.

**Aspiration hazard** No information available.

**Other adverse effects** No information available.

**Interactive effects** No information available.

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ethanol-200 Proof 64-17-5	-	12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static	-	9268 - 14221: 48 h Daphnia magna mg/L LC50 2: 48 h Daphnia magna mg/L EC50 Static

**Persistence and degradability** No information available.

**Bioaccumulation** There is no data for this product.

**Component Information**

Chemical name	Partition coefficient
Ethanol-200 Proof 64-17-5	-0.32

**Other adverse effects** No information available.

### 13. Disposal considerations

#### Waste treatment methods

**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.

**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste.

### 14. Transport information

#### DOT

**UN number or ID number** UN1993  
**Proper shipping name** Flammable liquids, n.o.s.  
**Transport hazard class(es)** 3  
**Packing group** III  
**Special Provisions** B1, B52, IB3, T4, TP1, TP29  
**DOT Marine Pollutant** NP  
**Description** UN1993, Flammable liquids, n.o.s., 3, III  
**Emergency Response Guide Number** 128

#### TDG

**UN number or ID number** UN1993  
**UN proper shipping name** Flammable liquid, n.o.s.  
**Transport hazard class(es)** 3  
**Packing group** III  
**Special Provisions** 16, 150  
**Description** UN1993, Flammable liquid, n.o.s. (Ethanol-200 Proof), 3, III

#### MEX

**UN number or ID number** UN1993  
**UN proper shipping name** Flammable liquid, n.o.s.  
**Transport hazard class(es)** 3  
**Packing group** III  
**Technical Name** { TCODE="TNX" } : { COMP="'64-17-5','R4959'" }  
**Description** UN1993, Flammable liquid, n.o.s. (Ethanol-200 Proof), 3, III  
**Special Provisions** 223, 274

#### ICAO (air)

**UN number or ID number** UN1993  
**UN proper shipping name** Flammable liquid, n.o.s.  
**Transport hazard class(es)** 3  
**Packing group** III  
**Description** UN1993, Flammable liquid, n.o.s. (Ethanol-200 Proof), 3, III  
**Special Provisions** A3

#### IATA

**UN number or ID number** UN1993  
**UN proper shipping name** Flammable liquid, n.o.s.  
**Transport hazard class(es)** 3

<b>Packing group</b>	III
<b>Technical Name</b>	Ethanol-200 Proof
<b>Description</b>	UN1993, Flammable liquid, n.o.s. (Ethanol-200 Proof), 3, III
<b>Special Provisions</b>	A3
<b>ERG Code</b>	3L

**IMDG**

<b>UN number or ID number</b>	UN1993
<b>UN proper shipping name</b>	Flammable liquid, n.o.s.
<b>Transport hazard class(es)</b>	3
<b>Packing group</b>	III
<b>EmS-No</b>	F-E, S-E
<b>Special Provisions</b>	223, 274, 955
<b>Marine pollutant</b>	NP
<b>Description</b>	UN1993, Flammable liquid, n.o.s. (Ethanol-200 Proof), 3, III

**RID**

<b>UN number or ID number</b>	UN1993
<b>UN proper shipping name</b>	Flammable liquid, n.o.s.
<b>Transport hazard class(es)</b>	3
<b>Packing group</b>	III
<b>Classification code</b>	F1
<b>Special Provisions</b>	274, 601
<b>Description</b>	UN1993, Flammable liquid, n.o.s. (Ethanol-200 Proof), 3, III

**ADR**

<b>UN number or ID number</b>	UN1993
<b>UN proper shipping name</b>	Flammable liquid, n.o.s.
<b>Transport hazard class(es)</b>	3
<b>Packing group</b>	III
<b>Classification code</b>	F1
<b>Tunnel restriction code</b>	(D/E)
<b>Special Provisions</b>	274, 601
<b>Description</b>	UN1993, Flammable liquid, n.o.s. (Ethanol-200 Proof), 3, III, (D/E)

**ADN**

<b>UN number or ID number</b>	UN1993
<b>UN proper shipping name</b>	Flammable liquid, n.o.s.
<b>Transport hazard class(es)</b>	3
<b>Packing group</b>	III
<b>Classification code</b>	F1
<b>Special Provisions</b>	274, 601
<b>Description</b>	UN1993, Flammable liquid, n.o.s. (Ethanol-200 Proof), 3, III
<b>Ventilation</b>	VE01
<b>Equipment Requirements</b>	PP, EX, A

## 15. Regulatory information

**International Inventories**

**TSCA** -.

\*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

**DSL/NDSL** -.  
**EINECS/ELINCS** -.  
**ENCS** -.  
**IECSC** -.  
**KECL** -.  
**PICCS** -.  
**AICS** -.



**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** - Korea Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical name	California Proposition 65
Ethanol-200 Proof - 64-17-5	Carcinogen Developmental

**U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated under applicable state right-to-know regulations

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

<b>16. Other information</b>
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<b>NFPA</b>	<b>Health hazards</b> 1	<b>Flammability</b> 1	<b>Instability</b> 0	<b>Special hazards</b> -
<b>HMIS</b>	<b>Health hazards</b> * 2 1	<b>Flammability</b> 1	<b>Physical hazards</b> 0	<b>Personal protection</b> X
<i>Chronic Hazard Star Legend</i>	<i>* = Chronic Health Hazard</i>			

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	Time weighted average	STEL	Short term exposure limit
Ceiling	Maximum limit value	*	Skin designation

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

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Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AELG(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

**Revision Date** 2021-02-05  
**Revision Note** No information available.

**Disclaimer**

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**End of Safety Data Sheet**