## KIT SAFETY DATA SHEET



Kit Product Name Kit Catalogue Number(s) Microbial Culturing Reagents / Microbial Culturing Reagents Kit / Microbes and Health Kit 1665020, 1665020EDU, 1665021, 1665021EDU, 1665030, 1665030EDU

Revision date 29-Mar-2022

# Kit Contents

Catalogue Number(s)	Product Name
1660600, 1660403EDU, 1660600EDU, 1660472EDU, 1660472	LB Nutrient Agar Powder
1660407, 1660407EDU, 9702928	Ampicillin, lyophilized
1660412, 1660412EDU, 10011390	LB Broth, Capsules
1660408, 1660408EDU, 9702924	E. coli HB101 Lyophilized

KITC / BE Page 1/30



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: GB/T 16483-2008, GB/T 17519-2013

Product Name LB Nutrient Agar Powder

Revision date 19-Jan-2022 Revision Number 1.1

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

Product identifier

Product Name LB Nutrient Agar Powder

Catalogue Number(s) 1660600, 1660403EDU, 1660600EDU, 1660472EDU, 1660472

Other means of identification

Pure substance/mixture Mixture

Details of the supplier of the safety data sheet

Corporate Headquarters Manufacturer

Bio-Rad Laboratories Inc. 1000 Alfred Nobel Drive Hercules, CA 94547

USA

Bio-Rad Laboratories, Life Science Group Bio-Rad Laboratories Ltd.

2000 Alfred Nobel Drive Hercules, California 94547

USA

**Legal Entity / Contact Address** 

1st and 2nd Floor, Lumpini 1 Building 239/2, Rajdamri Road, Lumpini, Pathumwan, Bangkok 10330

Thailand

**Technical Service** +66 2 652 8313

ctsthailand@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Hong Kong: 800-968-793

Recommended use of the chemical and restrictions on use

Recommended use Laboratory chemicals

## **SECTION 2: Hazards identification**

## **Emergency Overview**

No significant adverse health effects

Appearance Powder Physical state Solid Odour Odourless

## Classification of the substance or mixture

Not classified

Label elements

### **Hazard statements**

Not classified

#### Physical and chemical hazards

Not applicable.

**Health hazards** 

Immediate Health Effects: Not applicable.

Chronic effects: Not applicable.

**Environmental hazards** 

Not applicable

Other hazards which do not result in classification

Not applicable

## **SECTION 3: Composition/information on ingredients**

#### Substance

Not applicable.

#### Mixture

Not classified.

Chemical name	Weight-%	CAS No
Sodium chloride	20 - 35	7647-14-5

## **SECTION 4: First aid measures**

#### Description of necessary first aid measures

**General advice** No hazards which require special first aid measures.

**Inhalation** Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a doctor.

**Skin contact** Wash skin with soap and water.

**Ingestion** Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed

No information available.

For emergency responders No information available.

Note to doctors Treat symptomatically.

## SECTION 5: Firefighting measures

## **Extinguishing media**

surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the

chemical

No information available.

Special protective actions for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout

gear. Use personal protection equipment.

## SECTION 6: Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

**Personal precautions** See section 8 for more information.

**Environmental precautions** See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly

labelled containers.

Precautions to prevent secondary

hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

## **SECTION 7: Handling and storage**

Precautions for safe handling Handle in accordance with good industrial hygiene and safety practice. See Section 8 for

information on appropriate personal protective equipment.

Conditions for safe storage, including any incompatibilities

Store according to product and label instructions.

**Incompatible materials**None known based on information supplied.

## SECTION 8: Exposure controls/personal protection

#### Occupational exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Note See section 16 for terms and abbreviations

#### **Biological occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

#### Monitoring and observation processes

No applicable information was found.

Engineering controls Showers

Eyewash stations Ventilation systems.

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

**Eye/face protection** Wear safety glasses with side shields (or goggles).

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

**Hand protection** Wear suitable gloves.

exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance Powder
Colour white
Physical state Solid
Odour Odourless

Odour threshold No information available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

рΗ None known Melting point / freezing point No data available None known Boiling point / boiling range No data available None known Flash point No data available None known **Evaporation rate** No data available None known Flammability (solid, gas) No data available None known Flammability Limit in Air None known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Vapour pressureNo data availableNone knownVapour densityNo data availableNone knownRelative densityNo data availableNone known

Water solubility Soluble in water Solubility(ies) No data available None known None known **Partition coefficient** No data available None known No data available **Autoignition temperature** None known No data available **Decomposition temperature** Kinematic viscosity No data available None known No data available None known **Dynamic viscosity** 

Additional information

Explosive properties Not applicable Oxidising properties Not applicable

## SECTION 10: Stability and reactivity

Stability Stable under normal conditions.

<u>Possibility of hazardous reactions</u> None under normal processing.

Sensitivity to mechanical impact None. Sensitivity to static discharge None.

<u>Conditions to avoid</u> None known based on information supplied.

<u>Incompatible materials</u> None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

## SECTION 11: Toxicological information

Acute toxicity

Numerical measures of toxicity

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

ATEmix (oral) 5,398.20 mg/kg

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium chloride	= 3 g/kg (Rat)	> 10000 mg/kg(Rabbit)	> 42 mg/L (Rat)1 h

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. Based on available data, the classification criteria are not met. Respiratory or skin sensitisation Germ cell mutagenicity Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. Reproductive toxicity Based on available data, the classification criteria are not met. Specific target organ toxicity — Based on available data, the classification criteria are not met. single exposure Specific target organ toxicity — Based on available data, the classification criteria are not met. repeated exposure Based on available data, the classification criteria are not met. **Aspiration hazard** 

## **SECTION 12: Ecological information**

#### **Ecotoxicity**

**Unknown aquatic toxicity** 0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
Sodium chloride	-	LC50: 4747 - 7824mg/L (96h,	EC50: 340.7 - 469.2mg/L (48h,
		Oncorhynchus mykiss)	Daphnia magna)
		LC50: 5560 - 6080mg/L (96h,	EC50: =1000mg/L (48h,
		Lepomis macrochirus)	Daphnia magna)
		LC50: 6020 - 7070mg/L (96h,	-
		Pimephales promelas)	
		LC50: 6420 - 6700mg/L (96h,	
		Pimephales promelas)	
		LC50: =12946mg/L (96h,	
		Lepomis macrochirus)	
		LC50: =7050mg/L (96h,	
		Pimephales promelas)	

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility in soil No information available.

## **SECTION 13: Disposal considerations**

Waste chemicals Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

<u>Contaminated packaging</u> Do not reuse empty containers.

## **SECTION 14: Transport information**

IMDG Not regulated

Transport in bulk according to No information available

Annex II of MARPOL and the IBC

Code

IATA Not regulated

<u>China</u> Not regulated

Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

## SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

#### **National regulations**

Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Catalogue of occupational hazard factors:

Catalogue of occupational diseases:

Not applicable.

Not applicable.

Regulations on the Control over Safety of Hazardous Chemicals

Inventory of hazardous chemicals Not applicable.

GB 18218-2009 Identification of major hazard installations for dangerous chemicals Not applicable

List of hazardous chemicals under priority management Not applicable

Regulations on Labour Protection in Workplaces Where Toxic Substances Are Used

Inventory of highly toxic goods

Not applicable

Regulations for Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

List of toxic chemicals severely restricted for import and export in China Not applicable

Measures for the Environmental Management of New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances 
Contact supplier for inventory compliance status.

## International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

### **SECTION 16: Other information**

Prepared By Bio-Rad Laboratories, Environmental Health and Safety

Revision date 19-Jan-2022

**Revision Note** Significant changes throughout SDS. Review all sections.

#### Abbreviations and acronyms

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

C Carcinogen

#### 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 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

Australian 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)

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

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

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

RTECS (Registry of Toxic Effects of Chemical Substances)

World Health Organization

#### **Disclaimer**

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

**End of Safety Data Sheet** 



## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: GB/T 16483-2008, GB/T 17519-2013

Product Name Ampicillin, lyophilized

Revision date 24-Feb-2021 Revision Number 2

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

**Product identifier** 

Product Name Ampicillin, lyophilized

Catalogue Number(s) 1660407, 1660407EDU, 9702928

English chemical name Sodium

[2S-[2.alpha.,5.alpha.,6.beta.(S\*)]]-6-(aminophenylacetamido)-3,3-dimethyl-7-oxo-4-thia-1-a

zabicyclo[3.2.0]heptane-2-carboxylate

Other means of identification

**CAS No** 69-52-3

Pure substance/mixture Mixture

Details of the supplier of the safety data sheet

Corporate Headquarters Ma

Bio-Rad Laboratories Inc. 1000 Alfred Nobel Drive

Hercules, CA 94547

USA

Manufacturer

Bio-Rad Laboratories, Life Science Group Bio-Rad Laboratories Ltd.

2000 Alfred Nobel Drive Hercules, California 94547

USA

**Legal Entity / Contact Address** 

1st and 2nd Floor, Lumpini 1 Building 239/2, Rajdamri Road, Lumpini, Pathumwan, Bangkok 10330

Thailand

**Technical Service** +66 2 652 8313

ctsthailand@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Hong Kong: 800-968-793

Recommended use of the chemical and restrictions on use

Recommended use Laboratory chemicals

### **SECTION 2: Hazards identification**

### **Emergency Overview**

May cause allergic respiratory reaction May cause allergic skin reaction

Appearance crystalline Physical state Solid Odour Odourless

### Classification of the substance or mixture

Respiratory sensitisation	Category 1
Skin sensitisation	Category 1A

#### Label elements



### Signal word Danger

#### **Hazard statements**

May cause allergy or asthma symptoms or breathing difficulties if inhaled May cause an allergic skin reaction

#### **Precautionary statements**

#### Prevention

Avoid breathing dust/fume/gas/mist/vapours/spray
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves/protective clothing/eye protection/face protection
Response

#### Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing If experiencing respiratory symptoms: Call a POISON CENTER or doctor IF ON SKIN: Wash with plenty of water and soap If skin irritation or rash occurs: Get medical advice/attention

Take off all contaminated clothing and wash it before reuse

#### **Disposal**

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

### Physical and chemical hazards

Not applicable.

#### **Health hazards**

Immediate Health Effects: Allergic reactions (sensitiser). Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Chronic effects: Not applicable.

#### **Environmental hazards**

Not applicable

### Other hazards which do not result in classification

Not applicable

## **SECTION 3: Composition/information on ingredients**

#### Substance

Not applicable.

**CAS No** 69-52-3

#### <u>Mixture</u>

Chemical name	Weight-%	CAS No
Sodium	50 - 100	69-52-3
[2S-[2.alpha.,5.alpha.,6.beta.(S*)]]-6-(aminophenyla		
cetamido)-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.		
2.0]heptane-2-carboxylate		

Product Name Ampicillin, lyophilized Revision date 24-Feb-2021

## **SECTION 4: First aid measures**

#### **Description of necessary first aid measures**

**General advice** Show this safety data sheet to the doctor in attendance.

**Inhalation** May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration.

Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get immediate medical advice/attention.

**Eye contact**Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a doctor.

**Skin contact** Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation

or allergic reactions see a doctor.

**Ingestion** May produce an allergic reaction. Do NOT induce vomiting. Clean mouth with water and

drink afterwards plenty of water. Never give anything by mouth to an unconscious person.

Get immediate medical advice/attention.

Most important symptoms and effects, both acute and delayed

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or

wheezing. Itching. Rashes. Hives.

<u>For emergency responders</u> Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. See section 8 for more information.

Note to doctors May cause sensitisation in susceptible persons. Treat symptomatically.

## **SECTION 5: Firefighting measures**

**Extinguishing media** 

surrounding environment.

**Unsuitable extinguishing media** No information available.

Specific hazards arising from the

chemical

Product is or contains a sensitiser. May cause sensitisation by inhalation and skin contact.

May cause sensitisation by skin contact.

**Special protective actions for** 

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout

gear. Use personal protection equipment.

## SECTION 6: Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal

protective equipment as required. Evacuate personnel to safe areas. Keep people away

from and upwind of spill/leak.

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

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

Product Name Ampicillin, lyophilized

Methods and material for containment and cleaning up Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly

labelled containers.

hazards

**Precautions to prevent secondary** Clean contaminated objects and areas thoroughly observing environmental regulations.

Revision date 24-Feb-2021

## SECTION 7: Handling and storage

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with Precautions for safe handling

skin, eyes or clothing. Ensure adequate ventilation. Provide extract ventilation to points where emissions occur. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash it before reuse. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. See Section 8 for information on appropriate

personal protective equipment.

Conditions for safe storage, including any incompatibilities Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Store according to product and label instructions.

Incompatible materials None known based on information supplied.

## SECTION 8: Exposure controls/personal protection

### Occupational exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Note See section 16 for terms and abbreviations

#### **Biological occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

#### Monitoring and observation processes

No applicable information was found.

**Engineering controls Showers** 

Evewash stations Ventilation systems.

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

Wear safety glasses with side shields (or goggles). Eye/face protection

Skin and body protection Wear suitable protective clothing.

Hand protection Wear suitable gloves.

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** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do

not eat, drink or smoke when using this product. Remove and wash contaminated clothing

and gloves, including the inside, before re-use.

## SECTION 9: Physical and chemical properties

Product Name Ampicillin, lyophilized

Revision date 24-Feb-2021

Information on basic physical and chemical properties

Appearance crystalline
Colour light yellow
Physical state Solid
Odour Odourless

Odour threshold No information available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

pH None known

Melting point / freezing point 240 °C

Boiling point / boiling rangeNo data availableNone knownFlash pointNo data availableNone knownEvaporation rateNo data availableNone knownFlammability (solid, gas)No data availableNone knownFlammability Limit in AirNone known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Vapour pressureNo data availableNone knownVapour densityNo data availableNone knownRelative densityNo data availableNone known

Water solubility
Soluble in water
Solubility
No data available

Solubility(ies) No data available None known **Partition coefficient** No data available None known **Autoignition temperature** No data available None known No data available None known **Decomposition temperature** Kinematic viscosity No data available None known **Dynamic viscosity** No data available None known

Additional information

Explosive properties Not applicable Oxidising properties Not applicable

## SECTION 10: Stability and reactivity

<u>Stability</u> Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Sensitivity to mechanical impact None. Sensitivity to static discharge None.

<u>Conditions to avoid</u> None known based on information supplied.

**Incompatible materials**None known based on information supplied.

<u>Hazardous decomposition products</u> None known based on information supplied.

## **SECTION 11: Toxicological information**

**Acute toxicity** 

Numerical measures of toxicity

**Component Information** 

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium	> 5314 mg/kg (Rat)	-	-
[2S-[2.alpha.,5.alpha.,6.beta.(S*			

Product Name Ampicillin, lyophilized

Revision date 24-Feb-2021

)]]-6-(aminophenylacetamido)-3,		
3-dimethyl-7-oxo-4-thia-1-azabi		
cyclo[3.2.0]heptane-2-carboxyla		
te		

Based on available data, the classification criteria are not met. Skin corrosion/irritation

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation May cause sensitisation by inhalation. May cause sensitisation by skin contact.

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

Carcinogenicity

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

	The terror was a series with the series and the series are the series and the series and the series are the series are the series and the series are the ser				
	Chemical name	China	IARC		
	Sodium	-	Group 3		
[2S-[2.al	lpha.,5.alpha.,6.beta.(S*)]]-6-(aminophenyla		·		
cetamid	o)-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.				
	2.0]heptane-2-carboxylate				

#### Legend

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

Group 3 - Not Classifiable as to Carcinogenicity in Humans

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

Specific target organ toxicity —

single exposure

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

Specific target organ toxicity —

repeated exposure

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

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

## SECTION 12: Ecological information

The environmental impact of this product has not been fully investigated. **Ecotoxicity** 

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Mobility in soil No information available.

## **SECTION 13: Disposal considerations**

Dispose of in accordance with local regulations. Dispose of waste in accordance with Waste chemicals

environmental legislation.

Do not reuse empty containers. Contaminated packaging

## **SECTION 14: Transport information**

Not regulated

Transport in bulk according to No information available

Annex II of MARPOL and the IBC

Code

IATA Not regulated

Not regulated China

#### Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

## SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

#### National regulations

Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Catalogue of occupational hazard factors: Not applicable. Catalogue of occupational diseases: Not applicable.

Regulations on the Control over Safety of Hazardous Chemicals

Inventory of hazardous chemicals Not applicable.

GB 18218-2009 Identification of major hazard installations for dangerous chemicals Not applicable

List of hazardous chemicals under priority management Not applicable

Regulations on Labour Protection in Workplaces Where Toxic Substances Are Used

Inventory of highly toxic goods Not applicable

Regulations for Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

List of toxic chemicals severely restricted for import and export in China Not applicable

Measures for the Environmental Management of New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances Contact supplier for inventory compliance status.

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

## **SECTION 16: Other information**

Prepared By Bio-Rad Laboratories, Environmental Health and Safety

Revision date 24-Feb-2021

**Revision Note** SDS sections updated. 1. 2.

Abbreviations and acronyms

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value Skin designation

Carcinogen

#### 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 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

Australian 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)

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

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

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

RTECS (Registry of Toxic Effects of Chemical Substances)

World Health Organization

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**End of Safety Data Sheet** 



## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: GB/T 16483-2008, GB/T 17519-2013

Product Name LB Broth, Capsules Revision date 08-Mar-2021 Revision Number 1

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

**Product identifier** 

Product Name LB Broth, Capsules

Catalogue Number(s) 1660412, 1660412EDU, 10011390

Other means of identification

Pure substance/mixture Mixture

Details of the supplier of the safety data sheet

<u>Corporate Headquarters</u> <u>Manufacturer</u>

Bio-Rad Laboratories Inc.

Bio-Rad Laboratories, Life
1000 Alfred Nobel Drive

Hercules, CA 94547

Bio-Rad Laboratories, Life
2000 Alfred Nobel Drive

Hercules, California 94547

USA USA

Manufacturer Legal Entity / Contact Address
Bio-Rad Laboratories, Life Science Group Bio-Rad Laboratories Ltd.

1st and 2nd Floor, Lumpini 1 Building 239/2, Rajdamri Road, Lumpini, Pathumwan, Bangkok 10330

Thailand

**Technical Service** +66 2 652 8313

ctsthailand@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Hong Kong: 800-968-793

Recommended use of the chemical and restrictions on use

Recommended use Laboratory chemicals

## **SECTION 2: Hazards identification**

## **Emergency Overview**

No significant adverse health effects

Appearance tablet Physical state Solid Odour sweet

Classification of the substance or mixture

Acute toxicity - Oral Category 5

Label elements

Signal word Warning

**Hazard statements** 

May be harmful if swallowed

#### **Precautionary statements**

Response

Call a POISON CENTRE or doctor if you feel unwell

#### Physical and chemical hazards

Not applicable.

#### Health hazards

Immediate Health Effects: If large quantities of this material are swallowed, call a doctor immediately. If symptoms persist, call a

doctor.

Chronic effects: Not applicable.

#### **Environmental hazards**

Not applicable

#### Other hazards which do not result in classification

Not applicable

## SECTION 3: Composition/information on ingredients

#### **Substance**

Not applicable.

Mixture

## **SECTION 4: First aid measures**

#### Description of necessary first aid measures

**General advice** No hazards which require special first aid measures.

**Inhalation** Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a doctor.

**Skin contact** Wash skin with soap and water.

**Ingestion** Rinse mouth thoroughly with water.

Most important symptoms and

effects, both acute and delayed

No information available.

For emergency responders No information available.

Note to doctors Treat symptomatically.

## SECTION 5: Firefighting measures

### **Extinguishing media**

surrounding environment.

Unsuitable extinguishing media No information available.

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

chemical

Special protective actions for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout

gear. Use personal protection equipment.

## **SECTION 6: Accidental release measures**

#### Personal precautions, protective equipment and emergency procedures

**Personal precautions** See section 8 for more information.

**Environmental precautions** See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly

labelled containers.

Precautions to prevent secondary

hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

## SECTION 7: Handling and storage

<u>Precautions for safe handling</u> Handle in accordance with good industrial hygiene and safety practice. See Section 8 for

information on appropriate personal protective equipment.

Conditions for safe storage, including any incompatibilities

Store according to product and label instructions.

**Incompatible materials**None known based on information supplied.

## SECTION 8: Exposure controls/personal protection

## Occupational exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Note** See section 16 for terms and abbreviations

### **Biological occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

#### **Monitoring and observation processes**

No applicable information was found.

Engineering controls Showers

Eyewash stations Ventilation systems.

## Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

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

Hand protection Wear suitable gloves.

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** Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance tablet
Colour light brown
Physical state Solid
Odour sweet

Odour threshold No information available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

None known Melting point / freezing point No data available None known Boiling point / boiling range No data available None known Flash point No data available None known No data available **Evaporation rate** None known Flammability (solid, gas) No data available None known Flammability Limit in Air None known

**Upper flammability or explosive** No data available

limits

Lower flammability or explosive No data available

limits

Vapour pressureNo data availableNone knownVapour densityNo data availableNone knownRelative densityNo data availableNone known

Soluble in water Water solubility No data available Solubility(ies) None known No data available None known **Partition coefficient Autoignition temperature** No data available None known **Decomposition temperature** No data available None known Kinematic viscosity No data available None known No data available **Dynamic viscosity** None known

Additional information

**Explosive properties**Not applicable
Not applicable

## SECTION 10: Stability and reactivity

<u>Stability</u> Stable under normal conditions.

<u>Possibility of hazardous reactions</u> None under normal processing.

**Sensitivity to mechanical impact** None. **Sensitivity to static discharge** None.

<u>Conditions to avoid</u> None known based on information supplied.

<u>Incompatible materials</u> None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

## SECTION 11: Toxicological information

Acute toxicity

Numerical measures of toxicity

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

ATEmix (oral) 3,000.00 mg/kg ATEmix (dermal) 10,010.00 mg/kg

#### Unknown acute toxicity

75 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

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

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

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

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

Specific target organ toxicity —

single exposure

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

Specific target organ 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.

## **SECTION 12: Ecological information**

**Ecotoxicity** 

**Unknown aquatic toxicity** 0 % of the mixture consists of component(s) of unknown hazards to the aquatic

environment

Persistence and degradability No information available.

<u>Bioaccumulative potential</u> No information available.

Mobility in soil No information available.

## **SECTION 13: Disposal considerations**

Waste chemicals Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

## SECTION 14: Transport information

MDG Not regulated

Transport in bulk according to No information available

Annex II of MARPOL and the IBC

Code

\_\_\_\_\_

IATA Not regulated

<u>China</u> Not regulated

#### Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

## SECTION 15: Regulatory information

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### **National regulations**

#### Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Catalogue of occupational hazard factors:

Catalogue of occupational diseases:

Not applicable.

Not applicable.

Regulations on the Control over Safety of Hazardous Chemicals

Inventory of hazardous chemicals Not applicable.

GB 18218-2009 Identification of major hazard installations for dangerous chemicals Not applicable

List of hazardous chemicals under priority management Not applicable

Regulations on Labour Protection in Workplaces Where Toxic Substances Are Used

Inventory of highly toxic goods

Not applicable

Regulations for Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

List of toxic chemicals severely restricted for import and export in China Not applicable

Measures for the Environmental Management of New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances 
Contact supplier for inventory compliance status.

**International Regulations** 

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

## **SECTION 16: Other information**

Prepared By Bio-Rad Laboratories, Environmental Health and Safety

Revision date 08-Mar-2021

**Revision Note** SDS sections updated. 1. 2.

Abbreviations and acronyms

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

C Carcinogen

#### 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 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

Australian 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)

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

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

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

RTECS (Registry of Toxic Effects of Chemical Substances)

World Health Organization

#### **Disclaimer**

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

**End of Safety Data Sheet** 



## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: GB/T 16483-2008, GB/T 17519-2013

Product Name E. coli HB101 Lyophilized

Revision date 19-Nov-2021

**Revision Number** 1

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

**Product identifier** 

**Product Name** E. coli HB101 Lyophilized

Catalogue Number(s) 1660408, 1660408EDU, 9702924

**BSL1** Bacteria **English chemical name** 

Other means of identification

Pure substance/mixture Substance

Details of the supplier of the safety data sheet

**Corporate Headquarters** Manufacturer

Bio-Rad Laboratories Inc. 1000 Alfred Nobel Drive

Hercules, CA 94547

USA

Bio-Rad Laboratories, Life Science Group Bio-Rad Laboratories Ltd.

2000 Alfred Nobel Drive Hercules, California 94547

USA

**Legal Entity / Contact Address** 

1st and 2nd Floor, Lumpini 1 Building 239/2, Rajdamri Road, Lumpini, Pathumwan, Bangkok 10330

Thailand

**Technical Service** +66 2 652 8313

ctsthailand@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Hong Kong: 800-968-793

Recommended use of the chemical and restrictions on use

Recommended use Laboratory chemicals

## **SECTION 2: Hazards identification**

## **Emergency Overview**

No significant adverse health effects

Appearance aqueous solution Physical state Liquid **Odour** Odourless

Classification of the substance or mixture

Not classified

Label elements

Revision date 19-Nov-2021

Page 24/30 Review Date 19-Nov-2021

#### **Hazard statements**

Not classified

#### Physical and chemical hazards

Not applicable.

#### **Health hazards**

Immediate Health Effects: Not applicable.

Chronic effects: Not applicable.

#### **Environmental hazards**

Not applicable

#### Other hazards which do not result in classification

Not applicable

Biosafety Level 1 - Agents not known to consistently cause disease in healthy adults and that present minimal potential hazard to laboratory personnel and the environment, are present in this product. Contains human source material and / or potentially infectious components.

## SECTION 3: Composition/information on ingredients

#### Substance

Not classified.

Chemical name	Weight-%	CAS No
BSL1 Bacteria	50 - 100	NO-CAS-104

## **SECTION 4: First aid measures**

#### **Description of necessary first aid measures**

General advice No hazards which require special first aid measures.

**Inhalation** Remove to fresh air.

Eye contact Contains human source material and / or potentially infectious components. Call a doctor if

irritation persists.

**Skin contact** Wash skin with soap and water.

**Ingestion** Call a doctor. Contains human source material and / or potentially infectious components.

Most important symptoms and effects, both acute and delayed

No information available.

For emergency responders No information available.

Note to doctors Contains human source material and / or potentially infectious components.

## SECTION 5: Firefighting measures

## **Extinguishing media**

surrounding environment.

**Unsuitable extinguishing media** No information available.

Specific hazards arising from the

<u>chemical</u>

No information available.

Special protective actions for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout

gear. Use personal protection equipment.

## SECTION 6: Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

**Personal precautions** See section 8 for more information.

For emergency responders

Use personal protection recommended in Section 8.

**Environmental precautions**See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Do not allow into any sewer, on the ground or into any body of water. Clean contaminated

surface thoroughly. Use:. Disinfectant.

Precautions to prevent secondary

hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

## SECTION 7: Handling and storage

Precautions for safe handling Handle in accordance with good industrial hygiene and safety practice. Follow universal

and standard precautions for handling potentially infectious materials. See Section 8 for

information on appropriate personal protective equipment.

Conditions for safe storage, including any incompatibilities

Store according to product and label instructions.

Incompatible materials None known based on information supplied.

## SECTION 8: Exposure controls/personal protection

#### Occupational exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Note** See section 16 for terms and abbreviations

#### **Biological occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

## Monitoring and observation processes

No applicable information was found.

Engineering controls Showers

Eyewash stations Ventilation systems.

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

**Eye/face protection** Wear safety glasses with side shields (or goggles).

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

**Hand protection** Wear suitable gloves.

exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Follow universal and standard precautions for handling potentially infectious materials.

## SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties
Appearance aqueous solution

Colour light pink
Physical state Liquid

Odour Odourless
Odour threshold No information available

Property Values Remarks • Method

pH 7.5-8.5

Melting point / freezing point No data available None known

Boiling point / boiling range 100 °C

Flash point No data available None known
Evaporation rate No data available None known
Flammability (solid, gas) No data available None known
Flammability Limit in Air None known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Vapour pressureNo data availableNone knownVapour densityNo data availableNone knownRelative densityNo data availableNone known

Water solubility

No data available

Miscible in water

No data available

Solubility(ies) No data available None known Partition coefficient No data available None known Autoignition temperature No data available None known **Decomposition temperature** No data available None known Kinematic viscosity No data available None known **Dynamic viscosity** No data available None known

Additional information

Explosive properties Not applicable Oxidising properties Not applicable

## SECTION 10: Stability and reactivity

<u>Stability</u> Stable under normal conditions.

<u>Possibility of hazardous reactions</u> None under normal processing.

Sensitivity to mechanical impact None. Sensitivity to static discharge None.

<u>Conditions to avoid</u> None known based on information supplied.

**Incompatible materials**None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

## SECTION 11: Toxicological information

#### Acute toxicity

#### Numerical measures of toxicity

No information available

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

**Germ cell mutagenicity**Based on available data, the classification criteria are not met.

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

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

Specific target organ toxicity —

single exposure

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

Specific target organ 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.

## **SECTION 12: Ecological information**

**Ecotoxicity**The environmental impact of this product has not been fully investigated.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Mobility in soil No information available.

## **SECTION 13: Disposal considerations**

<u>Waste chemicals</u> Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

<u>Contaminated packaging</u> Do not reuse empty containers.

## **SECTION 14: Transport information**

<u>IMDG</u> Not regulated

Transport in bulk according to No information available

Annex II of MARPOL and the IBC

Code

<u>IATA</u> Not regulated

China Not regulated

#### Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

## SECTION 15: Regulatory information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### **National regulations**

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Catalogue of occupational hazard factors:

Catalogue of occupational diseases:

Not applicable.

Not applicable.

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Inventory of hazardous chemicals

Not applicable.

GB 18218-2009 Identification of major hazard installations for dangerous chemicals

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List of hazardous chemicals under priority management Not applicable

Regulations on Labour Protection in Workplaces Where Toxic Substances Are Used

Inventory of highly toxic goods

Not applicable

Regulations for Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

List of toxic chemicals severely restricted for import and export in China

Not applicable

Measures for the Environmental Management of New Chemical Substances

**IECSC - China Inventory of Existing Chemical Substances**Contact supplier for inventory compliance status.

**International Regulations** 

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

### **SECTION 16: Other information**

Prepared By Bio-Rad Laboratories, Environmental Health and Safety

Revision date 19-Nov-2021

**Revision Note** Significant changes throughout SDS. Review all sections.

Abbreviations and acronyms

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

C Carcinogen

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**End of Safety Data Sheet**