

# KIT SAFETY DATA SHEET



**Kit Product Name** Engineering Solutions for Global Health Kit  
**Kit Catalogue Number(s)** 17005278, 17005278EDU  
**Revision date** 19-Jul-2023

## Kit Contents

| Catalogue Number(s) | Product Name                      |
|---------------------|-----------------------------------|
| 5000007, 5000007EDU | Bio-Rad Protein Assay Standard II |
| 5000205, 5000205EDU | Quick Start Bradford Reagent, 1X  |



# SAFETY DATA SHEET

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

**Product Name** Bio-Rad Protein Assay Standard II

**Revision date** 30-Aug-2022

**Revision Number** 1

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

### Product identifier

**Product Name** Bio-Rad Protein Assay Standard II

**Catalogue Number(s)** 5000007, 5000007EDU

**English chemical name** Albumins, beef serum

### Other means of identification

**CAS No** 94349-60-7

**Pure substance/mixture** Substance

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

#### Corporate Headquarters

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

#### Manufacturer

Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547  
USA

#### Legal Entity / Contact Address

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** powder or cake, lyophilised

**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**

Contains animal source material (Cattle)

**SECTION 3: Composition/information on ingredients****Substance****CAS No** 94349-60-7

Not classified.

| Chemical name        | Weight-% | CAS No     |
|----------------------|----------|------------|
| Albumins, beef serum | 50 - 100 | 94349-60-7 |

**SECTION 4: First aid measures****Description of necessary first aid measures**

|   |  |
|---|--|
| <b>General advice</b>   | No hazards which require special first aid measures.   |
| <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.<br>Consult a doctor. |
| <b>Skin contact</b>   | Wash skin with soap and water.   |
| <b>Ingestion</b>  | Rinse mouth thoroughly with water.   |
| <b><u>Most important symptoms and effects, both acute and delayed</u></b> | No information available.  |
| <b><u>For emergency responders</u></b>                                    | No information available.  |
| <b><u>Note to doctors</u></b>   | Treat symptomatically.   |

**SECTION 5: Firefighting measures****Extinguishing media**

|  |   |
|--|---|
| <b>Suitable Extinguishing Media</b>                      | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| <b>Unsuitable extinguishing media</b>                    | No information available.   |
| <b><u>Specific hazards arising from the chemical</u></b> | 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**

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.

**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** powder or cake, lyophilised  
**Colour** white  
**Physical state** Solid  
**Odour** Odourless  
**Odour threshold** No information available

| Property                               | Values            | Remarks • Method |
|--|-------------------|------------------|
| pH                                     |                   | 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 limits | No data available |                  |
| Lower flammability or explosive limits | No data available |                  |
| Vapour pressure                        | No data available | None known       |
| Vapour density                         | No data available | None known       |
| Relative density                       | No data available | None known       |
| Water solubility                       | Soluble in water  |                  |
| 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

**Stability** Stable under normal conditions.

**Possibility of hazardous reactions** None under normal processing.

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**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.

## SECTION 11: Toxicological information

### Acute toxicity

### Numerical measures of toxicity

No information available

|   |   |
|---|---|
| <b>Skin corrosion/irritation</b>                          | Based on available data, the classification criteria are not met. |
| <b>Serious eye damage/eye irritation</b>                  | Based on available data, the classification criteria are not met. |
| <b>Respiratory or skin sensitisation</b>                  | Based on available data, the classification criteria are not met. |
| <b>Germ cell mutagenicity</b>                             | Based on available data, the classification criteria are not met. |
| <b>Carcinogenicity</b>                                    | Based on available data, the classification criteria are not met. |
| <b>Reproductive toxicity</b>                              | Based on available data, the classification criteria are not met. |
| <b>Specific target organ toxicity — single exposure</b>   | Based on available data, the classification criteria are not met. |
| <b>Specific target organ toxicity — repeated exposure</b> | Based on available data, the classification criteria are not met. |
| <b>Aspiration hazard</b>                                  | Based on available data, the classification criteria are not met. |

## SECTION 12: Ecological information

|   |   |
|---|---|
| <b><u>Ecotoxicity</u></b>                   | The environmental impact of this product has not been fully investigated. |
| <b><u>Persistence and degradability</u></b> | No information available.   |
| <b><u>Bioaccumulative potential</u></b>     | No information available.   |
| <b><u>Mobility in soil</u></b>              | No information available.   |

## SECTION 13: Disposal considerations

|                                      |   |
|--------------------------------------|---|
| <b><u>Waste chemicals</u></b>        | Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. |
| <b><u>Contaminated packaging</u></b> | Do not reuse empty containers.  |

## SECTION 14: Transport information

|   |                          |
|---|--------------------------|
| <b><u>IMDG</u></b>  | Not regulated            |
| <b>Transport in bulk according to Annex II of MARPOL and the IBC Code</b> | No information available |
| <b><u>IATA</u></b>  | Not regulated            |
| <b><u>China</u></b>   | 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: | Not applicable. |
| Catalogue of occupational diseases:       | Not applicable. |

##### **Regulations on the Control over Safety of Hazardous Chemicals**

|   |                 |
|---|-----------------|
| <u>Inventory of hazardous chemicals</u> | Not applicable. |
|---|-----------------|

|   |                |
|---|----------------|
| <u>GB 18218-2009 Identification of major hazard installations for dangerous chemicals</u> | Not applicable |
|---|----------------|

|  |                |
|--|----------------|
| <b>List of hazardous chemicals under priority management</b> | 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**

|  |   |
|--|---|
| <b>IECSC - China Inventory of Existing Chemical Substances</b> | Contact supplier for inventory compliance status. |
|--|---|

#### International Regulations

|   |                |
|---|----------------|
| <b>The Montreal Protocol on Substances that Deplete the Ozone Layer</b> | Not applicable |
|---|----------------|

|  |                |
|--|----------------|
| <b>The Stockholm Convention on Persistent Organic Pollutants</b> | Not applicable |
|--|----------------|

|                                 |                |
|---------------------------------|----------------|
| <b>The Rotterdam Convention</b> | Not applicable |
|---------------------------------|----------------|

## SECTION 16: Other information

|                    |   |
|--------------------|---|
| <b>Prepared By</b> | Bio-Rad Laboratories, Environmental Health and Safety |
|--------------------|---|

|                      |             |
|----------------------|-------------|
| <b>Revision date</b> | 30-Aug-2022 |
|----------------------|-------------|

|                      |   |
|----------------------|---|
| <b>Revision Note</b> | Reformatted and updated existing information. |
|----------------------|---|

#### **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) (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  
 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** Quick Start Bradford Reagent, 1X

**Revision date** 18-Jul-2023

**Revision Number** 2.1

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

### Product identifier

**Product Name** Quick Start Bradford Reagent, 1X

**Catalogue Number(s)** 5000205, 5000205EDU

### Other means of identification

**Pure substance/mixture** Mixture

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

#### Corporate Headquarters

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

#### Manufacturer

Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547  
USA

#### Legal Entity / Contact Address

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**

CORROSIVE - CAUSES IRREVERSIBLE EYE (AND SKIN) DAMAGE  
Risk of serious damage to eyes

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

### Classification of the substance or mixture

|  |                           |
|--|---------------------------|
| <b>Acute toxicity - Oral</b>                               | Category 4                |
| <b>Skin corrosion/irritation</b>                           | Category 1 Sub-category B |
| <b>Serious eye damage/eye irritation</b>                   | Category 1                |
| <b>Specific target organ toxicity - Single exposure</b>    | Category 1                |
| <b>Hazardous to the Aquatic Environment - Acute Hazard</b> | Category 3                |

**Label elements**



**Signal word**

Danger

**Hazard statements**

Harmful if swallowed

Causes severe skin burns and eye damage

Causes damage to organs

Harmful to aquatic life

**Precautionary statements**

**Prevention**

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Do not breathe dust/fume/gas/mist/vapours/spray

Wear protective gloves/protective clothing/eye protection/face protection

Avoid release to the environment

**Response**

Immediately call a POISON CENTRE or doctor

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Immediately call a POISON CENTRE or doctor

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

Wash contaminated clothing before reuse

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISON CENTRE or doctor

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

Rinse mouth

Do NOT induce vomiting

**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: Harmful. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Contact may cause burns to skin and eyes. Risk of serious damage to eyes. Impairment of vision.

Chronic effects: Target organ(s).

**Environmental hazards**

This material is a water pollutant. Keep out of drains, sewers, ditches and waterways. Minimise use of water to prevent environmental contamination

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

Not applicable

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

**Substance**

Not applicable.

**Mixture**

| Chemical name   | Weight-% | CAS No    |
|-----------------|----------|-----------|
| Phosphoric acid | 5 - 10   | 7664-38-2 |
| Methanol        | 5 - 10   | 67-56-1   |

## SECTION 4: First aid measures

### Description of necessary first aid measures

|   |  |
|---|--|
| <b>General advice</b>   | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.  |
| <b>Inhalation</b>   | Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention. |
| <b>Eye contact</b>  | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.   |
| <b>Skin contact</b>   | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention.  |
| <b>Ingestion</b>  | 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.  |
| <b><u>Most important symptoms and effects, both acute and delayed</u></b> | Burning sensation.   |
| <b><u>For emergency responders</u></b>                                    | 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. Wear personal protective clothing (see section 8).   |
| <b><u>Note to doctors</u></b>   | Product is a corrosive material. Use of gastric lavage or emesis is contra-indicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.  |

## SECTION 5: Firefighting measures

### Extinguishing media

|  |   |
|--|---|
| <b>Suitable Extinguishing Media</b>                        | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.                                 |
| <b>Unsuitable extinguishing media</b>                      | No information available.   |
| <b><u>Specific hazards arising from the chemical</u></b>   | The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapours. |
| <b><u>Special protective actions for fire-fighters</u></b> | 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**

|  |   |
|--|---|
| <b>Personal precautions</b>  | Attention! Corrosive material. 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. |
| <b>Other information</b>   | Refer to protective measures listed in Sections 7 and 8.  |
| <b>For emergency responders</b>                                    | Use personal protection recommended in Section 8.   |
| <b><u>Environmental precautions</u></b>                            | Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.   |
| <b><u>Methods and material for containment and cleaning up</u></b> | Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly labelled containers.   |
| <b><u>Precautions to prevent secondary hazards</u></b>             | Clean contaminated objects and areas thoroughly observing environmental regulations.  |

**SECTION 7: Handling and storage**

|  |   |
|--|---|
| <b><u>Precautions for safe handling</u></b>                                | Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. 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. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. See Section 8 for information on appropriate personal protective equipment. |
| <b><u>Conditions for safe storage, including any incompatibilities</u></b> | Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Protect from moisture. Store locked up. Store away from other materials. Store according to product and label instructions.   |
| <b>Incompatible materials</b>  | Acids. Bases. Oxidising agent.  |

**SECTION 8: Exposure controls/personal protection****Occupational exposure limits**

| Chemical name               | China  | ACGIH TLV   |
|-----------------------------|--|---|
| Phosphoric acid - 7664-38-2 | TWA: 1 mg/m <sup>3</sup><br>STEL: 3 mg/m <sup>3</sup>            | STEL: 3 mg/m <sup>3</sup><br>TWA: 1 mg/m <sup>3</sup> |
| Methanol - 67-56-1          | TWA: 25 mg/m <sup>3</sup><br>STEL: 50 mg/m <sup>3</sup><br>Skin* | STEL: 250 ppm<br>TWA: 200 ppm<br>S*                   |

**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

| Chemical name      | Biological standards | Monitoring and observation processes | ACGIH                            |
|--------------------|----------------------|--------------------------------------|----------------------------------|
| Methanol - 67-56-1 |                      |                                      | 15 mg/L - urine (Methanol) - end |

|  |  |  |          |
|--|--|--|----------|
|  |  |  | of shift |
|--|--|--|----------|

**Monitoring and observation processes**

No applicable information was found.

**Engineering controls**

Showers  
Eyewash stations  
Ventilation systems.

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

|                                       |   |
|---------------------------------------|---|
| <b>Eye/face protection</b>            | Tight sealing safety goggles. Face protection shield.   |
| <b>Skin and body protection</b>       | Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.   |
| <b>Hand protection</b>                | Wear suitable gloves. Impervious gloves.  |
| <b>Respiratory protection</b>         | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.  |
| <b>General hygiene considerations</b> | 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. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. |

**SECTION 9: Physical and chemical properties****Information on basic physical and chemical properties**

|                        |                          |
|------------------------|--------------------------|
| <b>Appearance</b>      | aqueous solution         |
| <b>Colour</b>          | light blue               |
| <b>Physical state</b>  | Liquid                   |
| <b>Odour</b>           | Alcohol                  |
| <b>Odour threshold</b> | No information available |

| <b>Property</b>                               | <b>Values</b>     | <b>Remarks • Method</b> |
|---|-------------------|-------------------------|
| <b>pH</b>                                     |                   | None known              |
| <b>Melting point / freezing point</b>         | No data available | None known              |
| <b>Boiling point / boiling range</b>          | 64.72 °C          |                         |
| <b>Flash point</b>                            | No data available | None known              |
| <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 or explosive limits</b> | No data available |                         |
| <b>Lower flammability or explosive limits</b> | No data available |                         |
| <b>Vapour pressure</b>                        | No data available | None known              |
| <b>Vapour density</b>                         | No data available | None known              |
| <b>Relative density</b>                       | No data available | None known              |
| <b>Water solubility</b>                       | Miscible in water |                         |
| <b>Solubility(ies)</b>                        | No data available | None known              |
| <b>Partition coefficient</b>                  | No data available | None known              |
| <b>Autoignition temperature</b>               | No data available | None known              |
| <b>Decomposition temperature</b>              | No data available | None known              |
| <b>Kinematic viscosity</b>                    | No data available | None known              |
| <b>Dynamic viscosity</b>                      | No data available | None known              |

**Additional information**

|                             |                |
|-----------------------------|----------------|
| <b>Explosive properties</b> | Not applicable |
| <b>Oxidising properties</b> | Not applicable |

**SECTION 10: Stability and reactivity**

**Stability** Stable under normal conditions.

**Possibility of hazardous reactions** None under normal processing.

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Conditions to avoid** Exposure to air or moisture over prolonged periods.

**Incompatible materials** Acids. Bases. Oxidising agent.

**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)                 | 1,800.00 mg/kg |
| ATEmix (dermal)               | 5,058.50 mg/kg |
| ATEmix (inhalation-dust/mist) | 10.00 mg/l     |
| ATEmix (inhalation-vapour)    | 834.00 mg/l    |

#### Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

#### Component Information

| Chemical name   | Oral LD50            | Dermal LD50              | Inhalation LC50                     |
|-----------------|----------------------|--------------------------|-------------------------------------|
| Phosphoric acid | = 1530 mg/kg ( Rat ) | = 2740 mg/kg ( Rabbit )  | > 850 mg/m <sup>3</sup> ( Rat ) 1 h |
| Methanol        | = 6200 mg/kg ( Rat ) | = 15840 mg/kg ( Rabbit ) | = 22500 ppm ( Rat ) 8 h             |

**Skin corrosion/irritation** Classification based on data available for ingredients. Causes burns.

**Serious eye damage/eye irritation** Classification based on data available for ingredients. Risk of serious damage to eyes. Causes burns.

**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 the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE), Causes damage to organs if swallowed.

**Specific target organ toxicity — repeated exposure** Based on available data, the classification criteria are not met.

**Target organ effects** Respiratory system. Eyes. Skin. Central nervous system. Gastrointestinal tract (GI).

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

**SECTION 12: Ecological information****Ecotoxicity** Harmful to aquatic life.**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 |
|---------------|----------------------|--|-----------|
| Methanol      | -                    | LC50: =28200mg/L (96h, Pimephales promelas)<br>LC50: >100mg/L (96h, Pimephales promelas)<br>LC50: 19500 - 20700mg/L (96h, Oncorhynchus mykiss)<br>LC50: 18 - 20mL/L (96h, Oncorhynchus mykiss)<br>LC50: 13500 - 17600mg/L (96h, Lepomis macrochirus) | -         |

**Persistence and degradability** No information available.**Bioaccumulative potential** There is no data for this product.**Component Information**

| Chemical name   | Partition coefficient |
|-----------------|-----------------------|
| Phosphoric acid | -0.9                  |
| Methanol        | -0.77                 |

**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**

**IMDG** Not regulated

**Transport in bulk according to Annex II of MARPOL and the IBC Code** No information available

**IATA** 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**

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

Catalogue of occupational hazard factors:

Listed. Chemical hazards.

Catalogue of occupational diseases:

Listed. Occupational poisoning.

| Chemical name | Category         |
|---------------|------------------|
| Methanol      | Chemical hazards |

**Regulations on the Control over Safety of Hazardous Chemicals**Inventory of hazardous chemicals

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed. Weight-% 14

| Chemical name   | Inventory of hazardous chemicals |
|-----------------|----------------------------------|
| Phosphoric acid | Listed                           |
| Methanol        | Listed                           |

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

| Chemical name | Threshold quantity (T) |
|---------------|------------------------|
| Methanol      | 500                    |

**List of hazardous chemicals under priority management**

| Chemical name | List of priority hazardous chemicals under work safety management |
|---------------|---|
| Methanol      | Listed  |

**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** 18-Jul-2023**Revision Note** Reformatted and updated existing information.**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) (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  
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**

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**End of Safety Data Sheet**