



# 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** 20-Aug-2025

**Revision Number** 4.2

## 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

**UN number or ID number** UN1805

**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 Pacific Limited  
2801-2802 & 2813  
28/F, AIRSIDE  
2 Concorde Road, Kai Tak  
Kowloon, Hong Kong

**Technical Service** +852 2789 3300  
sales.hongkong@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**

Irritating to skin  
Risk of serious damage to eyes

**Appearance** aqueous solution

**Physical state** Liquid

**Odour** Alcohol

### Classification of the substance or mixture

<b>Corrosive to metals</b>	Category 1
<b>Flammable liquids</b>	Category 4
<b>Acute toxicity - Oral</b>	Category 4
<b>Skin corrosion/irritation</b>	Category 3

Serious eye damage/eye irritation	Category 1
Specific target organ toxicity - Single exposure	Category 1
Hazardous to the Aquatic Environment - Acute Hazard	Category 3

**Label elements****Signal word**

Danger

**Hazard statements**

May be corrosive to metals  
Combustible liquid  
Harmful if swallowed  
Causes mild skin irritation  
Causes serious 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  
Avoid release to the environment  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
Wear protective gloves/protective clothing/eye protection/face protection

**Response**

IF exposed or concerned: Call a POISON CENTER or doctor  
If skin irritation occurs: Get medical advice/attention  
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  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish  
Absorb spillage to prevent material damage

**Storage**

Store in a well-ventilated place. Keep cool

**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.  
Causes skin irritation (pain, redness and swelling). 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**

No information available

### 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. Get medical attention immediately if symptoms occur. IF exposed or concerned: Get medical advice/attention.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. 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. If symptoms persist, call a doctor.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.
<b><u>Most important symptoms and effects, both acute and delayed</u></b>	Burning sensation. Prolonged contact may cause redness and irritation.
<b><u>For emergency responders</u></b>	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.
<b><u>Note to doctors</u></b>	Treat symptomatically.

### SECTION 5: Firefighting measures

#### Extinguishing media

<b>Suitable Extinguishing Media</b>	Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.
<b>Unsuitable extinguishing media</b>	No information available.
<b><u>Specific hazards arising from the chemical</u></b>	Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.

**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. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material.

**Other information**

Refer to protective measures listed in Sections 7 and 8.

**For emergency responders**

Use personal protection recommended in Section 8.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Refer to protective measures listed in Sections 7 and 8.

**Methods and material for containment and cleaning up**

Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dyke far ahead of liquid spill for later disposal. Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. 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. Avoid contact with skin, eyes or clothing. Use personal protection equipment. Do not breathe vapour or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use with local exhaust ventilation. Do not eat, drink or smoke when using this product. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. 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. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

**Incompatible materials**

Oxidising agent. Strong acids. Strong bases.

**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> STEL: 3 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>
Methanol - 67-56-1	TWA: 25 mg/m <sup>3</sup> STEL: 50 mg/m <sup>3</sup> Skin*	TWA: 200 ppm STEL: 250 ppm pSk

**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**

**Eye/face protection** Tight sealing safety 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** Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing.

### **SECTION 9: Physical and chemical properties**

#### **Information on basic physical and chemical properties**

**Appearance** aqueous solution  
**Colour** light blue  
**Physical state** Liquid  
**Odour** Alcohol  
**Odour threshold** No information available

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>
<b>pH</b>		None known
<b>Melting point / freezing point</b>	No data available	None known
<b>Initial boiling point and boiling range</b>	64.7 °C	
<b>Flash point</b>	65 °C	
<b>Evaporation rate</b>	No data available	None known
<b>Flammability</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>Relative 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
<b><u>Additional information</u></b>		
<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** Yes.

**Conditions to avoid** Exposure to air or moisture over prolonged periods. Heat, flames and sparks.

**Incompatible materials** Oxidising agent. Strong acids. Strong bases.

**Hazardous decomposition products** None known based on information supplied.

## SECTION 11: Toxicological information

**Acute toxicity**

**Numerical measures of toxicity**

No information available

**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 )	= 3846 mg/m <sup>3</sup> ( Rat ) 1 h
Methanol	= 6200 mg/kg ( Rat )	= 15840 mg/kg ( Rabbit )	= 22500 ppm ( Rat ) 8 h

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<b>Skin corrosion/irritation</b>	May cause skin irritation. Classification based on data available for ingredients.
<b>Serious eye damage/eye irritation</b>	Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.
<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 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.
<b>Specific target organ toxicity — repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>Target organ effects</b>	Respiratory system. Eyes. Skin. Central nervous system. Gastrointestinal tract (GI).
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

**Ecotoxicity** Harmful to aquatic life.

Chemical name	Algae/aquatic plants	Fish	Crustacea
Methanol	-	LC50: =28200mg/L (96h, Pimephales promelas) LC50: >100mg/L (96h, Pimephales promelas) LC50: 19500 - 20700mg/L (96h, Oncorhynchus mykiss) LC50: 18 - 20mL/L (96h, Oncorhynchus mykiss) 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**

UN number or ID number	Not regulated
UN proper shipping name	UN1805
Description	PHOSPHORIC ACID SOLUTION
Transport hazard class(es)	UN1805, PHOSPHORIC ACID SOLUTION, 8, III
Packing group	8
Marine pollutant	III
Special Provisions	NP
EmS-No.	223
Transport in bulk according to Annex II of MARPOL and the IBC Code	F-A, S-B
	No information available

**IATA**

UN number or ID number	UN1805
UN proper shipping name	Phosphoric acid, solution
Description	UN1805, Phosphoric acid, solution, 8, III
Transport hazard class(es)	8
Packing group	III
Special Provisions	A3, A803
ERG Code	8L

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UN number or ID number	UN1805
Proper shipping name	PHOSPHORIC ACID, SOLUTION
Transport hazard class(es)	8
Packing group	III
Description	UN1805, PHOSPHORIC ACID, SOLUTION, 8, III

**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.**Hong Kong - Pharmacy and Poisons Regulations**

Chemical name	Hong Kong - Pharmacy and Poisons Regulations
Phosphoric acid 7664-38-2	Schedule 10, Part 2, Division B Substance Schedule 10, Part 2, Division B Substance

Chemical name	Hong Kong - Pharmacy and Poisons Regulations - Special Exemptions
Phosphoric acid	Substances containing Phosphoric acid, not being descaling preparations containing more than 50%, weight in weight, of ortho-Phosphoric acid

**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** 20-Aug-2025**Revision Note** SDS sections updated. 14.

**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	Sk*	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)  
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)  
U.S. 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**