



SAFETY DATA SHEET

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

Product Name PROTEIN PREPARATION - #10573

Revision date 04-Nov-2022

Revision Number 1

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

Product identifier

Product Name PROTEIN PREPARATION - #10573

Other means of identification

Safety data sheet number 10573

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
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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 For research use only

SECTION 2: Hazards identification

Emergency Overview

No significant adverse health effects

Appearance Clear to semi-clear **Physical state** Liquid **Odour** No information available

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 hydroxide | 0.1 - 0.299 | 1310-73-2 |

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. |
| <u>Most important symptoms and effects, both acute and delayed</u> | No information available. |
| <u>For emergency responders</u> | No information available. |
| <u>Note to doctors</u> | Treat symptomatically. |

SECTION 5: Firefighting measures**Extinguishing media**

| | |
|--|--|
| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media | No information available. |
| <u>Specific hazards arising from the chemical</u> | No information available. |
| <u>Special protective actions for fire-fighters</u> | 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. |
| <u>Environmental precautions</u> | See Section 12 for additional Ecological Information. |
| <u>Methods and material for containment and cleaning up</u> | Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly labelled containers. |
| <u>Precautions to prevent secondary hazards</u> | 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. |
| <u>Conditions for safe storage, including any incompatibilities</u> | Store according to product and label instructions. |
| Incompatible materials | Metals. |

SECTION 8: Exposure controls/personal protection

Occupational exposure limits

| Chemical name | China | ACGIH TLV |
|------------------------------|--------------------------------------|------------------------------|
| Sodium hydroxide - 1310-73-2 | Ceiling: 2 mg/m ³ Ceiling | Ceiling: 2 mg/m ³ |

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 Clear to semi-clear
Colour Varies
Physical state Liquid
Odour No information available
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 Avoid contact with metals. This product contains Sodium azide. Sodium azide can react with

Copper, Brass, Lead, and solder in piping systems to form explosive compounds and toxic gases.

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Conditions to avoid None known based on information supplied.

Incompatible materials Metals.

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

Acute toxicity

Numerical measures of toxicity

Oral LD50 No information available
Dermal LD50 No information available
Inhalation LC50 No information available
Inhalation LC50 No information available

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|------------------|---------------------|-------------------------|-----------------|
| Sodium hydroxide | = 325 mg/kg (Rat) | = 1350 mg/kg (Rabbit) | - |

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

| Chemical name | Algae/aquatic plants | Fish | Crustacea |
|------------------|----------------------|-----------------------|-----------|
| Sodium hydroxide | - | LC50: =45.4mg/L (96h, | - |

| | | | |
|--|--|----------------------|--|
| | | Oncorhynchus mykiss) | |
|--|--|----------------------|--|

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Mobility in soil No information available.

SECTION 13: Disposal considerations

Waste chemicals Flush pipes with water frequently if discarding solutions containing Sodium azide into metal piping systems. 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 |
|------------------|------------------|
| Sodium hydroxide | 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-%
 0

| Chemical name | Inventory of hazardous chemicals |
|------------------|----------------------------------|
| Sodium hydroxide | Listed |

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** 04-Nov-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) (AELG(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 Japan GHS Classification
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program
 Organization for Economic Co-operation and Development Screening Information Data Set
 RTECS (Registry of Toxic Effects of Chemical Substances)
 World Health Organization

Disclaimer

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End of Safety Data Sheet