

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-Gel HT Hydroxyapatite Revision date 16-Nov-2021 Revision Number 3

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

Product identifier

Product NameBio-Gel HT HydroxyapatiteCatalogue Number(s)1300152, 1300151, 1300150

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

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

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SECTION 2: Hazards identification Emergency Overview No significant adverse health effects Appearance Suspension Physical state Solid Odour Odourless Classification of the substance or mixture Not classified Label elements

Hazard statements Not classified Revision date 16-Nov-2021

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.

<u>Mixture</u>

Not classified.

| 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

| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
|------------------------------|---|
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| 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. |
| 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 | Metals. |

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.

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

| Information on basic physical and o | | |
|-------------------------------------|--------------------------|------------------|
| Appearance | Suspension | |
| Colour | white | |
| Physical state | Solid | |
| Odour | Odourless | |
| Odour threshold | No information available | |
| | | |
| Property | Values | Remarks • Method |
| рН | | 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 pressure | No data available | None known |
| Vapour density | No data available | None known |
| Relative density | No data available | None known |
| Water solubility | Partially miscible | |
| 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. |
|------------------------------------|---|
| 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. |
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| 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

The following values are calculated based on chapter 3.1 of the GHS document ATEmix (oral) 50,750.7000 mg/kg

| 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. |

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. |
| 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.

 Provide the environmental legislation.

Contaminated packaging Do not reuse empty containers.

 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>

Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

Not regulated

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 | | | Environmental Hea | ealth and Safety | | | |
| Revision date | | 16-Nov-2021 | 16-Nov-2021 | | | | |
| Revision Note | | Significant changes throughout SDS. Review all sections. | | | | | |
| Abbreviations and acronymsLegendSection 8: EXPOSURE CONTTWATWA (time-weighteCeilingMaximum limit valueCCarcinogen | | ted average) | OTECTION STEL * | STEL (Short Term Exposure Limit) Skin designation | | | |
| 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 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 Bigh Production Volume Chemicals Programme Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme Organisation for Economic Co-operation and Development Bigh Production Volume Chemicals Programme Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme Organisation for Economic Co-operation and Development Bigh Production Volume Chemicals Programme Organisation for Economic Co-operation and Development Bigh 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 | | | | | | | |
| <u>Disclaimer</u> | | | | | | | |

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End of Safety Data Sheet