

Revision date 27-Oct-2021

Revision Number 1

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

### Product identifier

**Product Name** MICROBEAD SUSPENSION - #10256

### Other means of identification

**Safety data sheet number** 10256

### Recommended use of the chemical and restrictions on use

**Recommended use** For research use only

**Uses advised against** No information available

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

#### Corporate Headquarters

Bio-Rad Laboratories Inc.  
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USA

#### Manufacturer

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### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC New Zealand: 64-98010034

## SECTION 2: Hazards identification

### GHS Classification

<b>Carcinogenicity</b>	Classification not possible
<b>Reproductive toxicity</b>	Category 1B (HSNO - 6.8A)

### Label elements



**Signal word**  
Danger

**Hazard statements**

H360 - May damage fertility or the unborn child

**Precautionary Statements - Prevention**

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

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

**Precautionary Statements - Disposal**

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

**Other hazards which do not result in classification****SECTION 3: Composition/information on ingredients**

Chemical name	CAS No	Weight-%
Boric acid (H <sub>3</sub> BO <sub>3</sub> )	10043-35-3	0.3 - 0.999
Borax (B <sub>4</sub> Na <sub>2</sub> O <sub>7</sub> ·10H <sub>2</sub> O)	1303-96-4	0.1 - 0.299
Non-hazardous ingredients	Proprietary	Balance

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

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<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. Consult a doctor.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Ingestion</b>	Rinse mouth thoroughly with water.

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	No information available.
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**Indication of any immediate medical attention and special treatment needed**

<b>Note to doctors</b>	Treat symptomatically.
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**SECTION 5: Firefighting measures****Suitable Extinguishing Media**

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

**Specific hazards arising from the chemical** None known.

**Special protective actions for fire-fighters**

**Special protective equipment 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**

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

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labelled containers.

**Precautions to prevent secondary hazards**

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**SECTION 7: Handling and storage****Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Store locked up. Store according to product and label instructions.

**Incompatible materials** Metals.

**SECTION 8: Exposure controls/personal protection****Control parameters****Exposure Limits**

Chemical name	New Zealand	ACGIH TLV	United Kingdom	Australia
Boric acid (H <sub>3</sub> BO <sub>3</sub> ) 10043-35-3		STEL: 6 mg/m <sup>3</sup> inhalable particulate matter TWA: 2 mg/m <sup>3</sup> inhalable particulate matter	-	
Borax (B <sub>4</sub> Na <sub>2</sub> O <sub>7</sub> ·10H <sub>2</sub> O) 1303-96-4	TWA: 5 mg/m <sup>3</sup>	STEL: 6 mg/m <sup>3</sup> inhalable particulate matter TWA: 2 mg/m <sup>3</sup> inhalable particulate matter	TWA: 5 mg/m <sup>3</sup> STEL: 15 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>

**Biological occupational exposure limits**

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

**Appropriate engineering controls****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).

**Hand protection**

Wear suitable gloves.

**Skin and body protection**

Wear suitable protective clothing.

**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.

**Environmental exposure controls**

No information available.

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

Physical state	Liquid
Appearance	Clear to semi-clear
Colour	Varies
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		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	Not applicable.	
Oxidising properties	Not applicable.	
<b>Other information</b>		
Molecular weight	Not applicable	
VOC Content (%)	Not applicable	

## SECTION 10: Stability and reactivity

### Reactivity

Reactivity No information available.

### Chemical stability

Stability Stable under normal conditions.

### Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

### Possibility of hazardous reactions

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.

### Conditions to avoid

Conditions to avoid None known based on information supplied.

### Incompatible materials

Incompatible materials Metals.

### Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

## SECTION 11: Toxicological information

### Acute toxicity

### Information on likely routes of exposure

#### Product Information

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

**Skin contact** Specific test data for the substance or mixture is not available.

**Ingestion** Specific test data for the substance or mixture is not available.

**Symptoms** No information available.

#### 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

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Boric acid (H3BO3)	= 2660 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 0.16 mg/L ( Rat ) 4 h
Borax (B4Na2O7.10H2O)	= 3493 mg/kg ( Rat ) = 2660 mg/kg ( Rat )	> 10000 mg/kg ( Rabbit )	> 2 mg/m <sup>3</sup> ( Rat ) 4 h

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**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.

**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.

Chemical name	New Zealand	IARC
Boric acid (H3BO3) - 10043-35-3	-	Group 2A
Borax (B4Na2O7.10H2O) - 1303-96-4	-	Group 2A

#### Legend

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

Group 2A - Probably Carcinogenic to Humans

**Reproductive toxicity** Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

**STOT - single exposure** Based on available data, the classification criteria are not met.  
**Respiratory irritation** Based on available data, the classification criteria are not met.  
**Narcotic effects** Based on available data, the classification criteria are not met.

**STOT - 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

#### Ecotoxicity

**Aquatic 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
Boric acid (H <sub>3</sub> BO <sub>3</sub> )	-	LC50: =1020mg/L (72h, Carassius auratus)	EC50: 115 - 153mg/L (48h, Daphnia magna)

**Terrestrial ecotoxicity**

Chemical name	Earthworm	Avian	Honeybees
Boric acid (H <sub>3</sub> BO <sub>3</sub> )	-	Dietary Toxicity: LC50 > 5620 ppm (Anas platyrhynchos, 5 Days) Dietary Toxicity: LC50 > 5620 ppm (Colinus virginianus, 5 Days)	-

**Persistence and degradability** No information available.

**Bioaccumulative potential**

**Bioaccumulation** There is no data for this product.

Chemical name	Partition coefficient
Boric acid (H <sub>3</sub> BO <sub>3</sub> )	-0.757

**Mobility in soil****Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****Waste treatment methods****Contaminated packaging**

For packages that have been in direct contact with hazardous substances, the person must ensure that the package is rendered incapable of containing any substance. It must be disposed of in a manner that is consistent with the requirements for disposal of the substance that it contained, taking into account the material the package is manufactured from

Packages may only be reused or recycled if the package has been treated to remove any residual contents of the hazardous substance (class 1, 2, 3, 4, or 5); or the contents of the residue in the package are below the threshold for the substance to be classified as hazardous (class 6, 8, or 9 substance)

**SECTION 14: Transport information**

**IATA** Not regulated

**IMDG** Not regulated

**Transport in bulk according to Annex II of MARPOL and the IBC Code**

No information available

## SECTION 15: Regulatory information

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

#### National regulations

##### New Zealand

Chemical name	New Zealand HSNO Chemical Classification
Boric acid (H <sub>3</sub> BO <sub>3</sub> ) - 10043-35-3	6.1E (All), 6.1E (O), 6.3B, 6.4A, 6.8B, 9.1D (All), 9.1D (Oth)
Borax (B <sub>4</sub> Na <sub>2</sub> O <sub>7</sub> ·10H <sub>2</sub> O) - 1303-96-4	6.1E (All), 6.1E (O), 6.4A, 6.8B, 9.1D (All), 9.1D (Oth)

#### National regulations

See Section 8 for any applicable tolerable exposure limits and environmental exposure limits

#### Certified handlers, tracking and controlled substance license requirements

Certified handlers are required for some substances. This includes for substances requiring a controlled substance license, including Class 1 explosives, vertebrate toxic agents (9.3A, B, C), and certain fumigants. Class 6.1A and 6.1B substances such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information

Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information

Controlled substance licenses are required to possess certain class 1 (explosive) and class 6 (vertebrate toxic agents or fumigants) substances. See Part 7 of the Health and Safety at Work Regulation 2017 for more information

#### EPA New Zealand HSNO approval code or group standard

Not applicable

#### International Inventories

Contact supplier for inventory compliance status

#### Legend:

#### 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

27-Oct-2021

#### Revision Note

Significant changes throughout SDS. Review all sections.

#### Key or legend to abbreviations and acronyms used in the safety data sheet

##### 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**

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**End of Safety Data Sheet**