

Revision date 27-Oct-2021

Revision Number 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** MICROBEAD SUSPENSION - #10256

### Other means of identification

**Safety data sheet number** 10256

**Registration Number(s)** No information available

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

**Recommended use** For research use only

### Supplier's details

#### Corporate Headquarters

Bio-Rad Laboratories Inc.  
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Hercules, CA 94547  
USA

#### Manufacturer

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Parkwood, Johannesburg 2193  
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### **Technical Service**

India: 91-124-4029300 or 1-800-180-1224  
South Africa: 27-11-442-85-08  
India: support.india@bio-rad.com  
South Africa: cdg\_techsupport\_eemea@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC India: 000-800-100-7141  
CHEMTREC South Africa: 0-800-983-611

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

Carcinogenicity	Classification not possible
Reproductive toxicity	Category 1B

### GHS Label elements, including precautionary statements



**Signal word**

**Danger**

**Hazard statements**

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**

No information available

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Substance**

Not applicable

**Mixture**

Chemical name	CAS No	Weight-%
Boric acid (H <sub>3</sub> BO <sub>3</sub> ) 10043-35-3	10043-35-3	0.31
Borax (B <sub>4</sub> Na <sub>2</sub> O <sub>7</sub> ·10H <sub>2</sub> O) 1303-96-4	1303-96-4	0.14

**4. FIRST AID MEASURES****Description of necessary 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>Skin contact</b>	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Ingestion</b>	Rinse mouth thoroughly with water.

**For emergency responders**

<b>Self-protection of the first aider</b>	No information available.
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**Most important symptoms and effects, both acute and delayed**

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

<b>Note to physicians</b>	Treat symptomatically.
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**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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**Large Fire**

CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media**

Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical****Specific hazards arising from the chemical**

No information available.

**Special protective actions for fire-fighters****Special protective equipment and precautions for fire-fighters**

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures****Personal precautions**

Ensure adequate ventilation.

**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 labeled containers.

**Prevention of secondary hazards**

Clean contaminated objects and areas thoroughly observing environmental regulations.

**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.

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

Store locked up.

**Incompatible materials**

Metals.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****Exposure guidelines**

Chemical name	ACGIH TLV	OSHA PEL	Ontario	European Union
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	-	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>	-
Borax (B <sub>4</sub> Na <sub>2</sub> O <sub>7</sub> ·10H <sub>2</sub> O) 1303-96-4	STEL: 6 mg/m <sup>3</sup> inhalable particulate matter TWA: 2 mg/m <sup>3</sup> inhalable particulate matter	(vacated) TWA: 10 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>	-

Chemical name	China	Japan Society of Occupational Health	Korea	Australia	Taiwan
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>	5 mg/m <sup>3</sup>	-

**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).

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid	<b>Odour</b>	No information available
<b>Appearance</b>	Clear to semi-clear	<b>Odour threshold</b>	No information available
<b>Colour</b>	Varies		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
pH		No information available	
Melting point / freezing point		No information available	
Boiling point / boiling range		No information available	
Flash point		No information available	
Evaporation rate		No information available	
Flammability (solid, gas)		No information available	
Upper/lower flammability or explosive limits			
Upper flammability or explosive limits	Not applicable		
Lower flammability or explosive limits	Not applicable		
Vapour pressure		No information available	
Vapour density		No information available	
Relative density		No information available	
Solubility(ies)			
Water solubility	Soluble in water		
Solubility in other solvents		No information available	
Partition coefficient		No information available	
Autoignition temperature		No information available	
Decomposition temperature		No information available	
Viscosity			
Kinematic viscosity		No information available	
Dynamic viscosity			
<b>Other information</b>			
<b>Oxidising properties</b>	Not applicable		

## 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** None under normal processing.

**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.

## 11. TOXICOLOGICAL INFORMATION

**Information on the 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 (H <sub>3</sub> BO <sub>3</sub> )	= 2660 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 0.16 mg/L ( Rat ) 4 h
Borax (B <sub>4</sub> Na <sub>2</sub> O <sub>7</sub> ·10H <sub>2</sub> O)	= 3493 mg/kg ( Rat ) = 2660 mg/kg ( Rat )	> 10000 mg/kg ( Rabbit )	> 2 mg/m <sup>3</sup> ( Rat ) 4 h

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**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Skin corrosion/irritation** No information available.

**Serious eye damage/irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

Chemical name	IARC
Boric acid (H <sub>3</sub> BO <sub>3</sub> )	Group 2A
Borax (B <sub>4</sub> Na <sub>2</sub> O <sub>7</sub> ·10H <sub>2</sub> O)	Group 2A

**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** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

## 12. ECOLOGICAL INFORMATION

**Toxicity**

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Ecotoxicity**

Chemical name	Algae/aquatic plants	Fish	Crustacea
Boric acid (H <sub>3</sub> BO <sub>3</sub> )	-	LC50: =1020mg/L (72h, <i>Carassius auratus</i> )	EC50: 115 - 153mg/L (48h, <i>Daphnia magna</i> )

**Persistence and degradability**

No information available.

**Bioaccumulative potential**

There is no data for this product.

**Mobility**

**Mobility in soil** No information available.

**Mobility** No information available.

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

**Other adverse effects**

No information available.

## 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

<b>Waste from residues/unused products</b>	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
<b>Contaminated packaging</b>	Do not reuse empty containers.

## 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>RID</u></b>	Not regulated
<b><u>ADR</u></b>	Not regulated
<b><u>ADN</u></b>	Not regulated
<b>Special precautions for user</b>	Special provisions from the regulations relative to the specified mode of transport are noted by numeric code. Refer to the regulations for the full text of special provisions.

## 15. REGULATORY INFORMATION

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

**International Inventories**

Contact supplier for inventory compliance status

## 16. OTHER INFORMATION

<b>Prepared By</b>	Bio-Rad Laboratories, Environmental Health and Safety
<b>Revision date</b>	27-Oct-2021
<b>Revision Note</b>	*** Indicates this information has changed since the previous revision.

**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		

**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**