



# SAFETY DATA SHEET

According to WHS Regulations

Revision date 17-Dec-2024

Revision Number 2

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

### Product identifier

**Product Name** Bio-Scale Mini Nuvia S Cartridge

**Catalogue Number(s)** 7324420, 7324421, 7324422, 7324423, 7324421, 7324422, 7324423

### Other means of identification

**Pure substance/mixture** Mixture

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

**Recommended use** Laboratory chemicals

**Uses advised against** No information available

### Details of manufacturer or importer

#### 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 Pty Ltd  
u1A, 62 Ferndell Street,  
South Granville NSW 2142  
Australia

For further information, please contact

**Technical Service** +61 2 9914 2800 or 1800 224 354  
sales.australia@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC Australia: 61-290372994

**Emergency telephone number** No information available

## SECTION 2: Hazards identification

### GHS Classification

|  |                     |
|--|---------------------|
| <b>Flammable liquids</b>                         | Category 3 - (H226) |
| <b>Acute toxicity - Inhalation (Dusts/Mists)</b> | Not applicable      |

### Label elements

Flame

**Signal word**

Warning

**Hazard statements**

H226 - Flammable liquid and vapour

**Precautionary Statements - Prevention**

Ground and bond container and receiving equipment

Use non-sparking tools

Take action to prevent static discharges

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

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

**Precautionary Statements - Response**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep cool

**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.

**SECTION 3: Composition/information on ingredients****Substance**

Not applicable

**Mixture**

| Chemical name             | CAS No.     | Weight-% |
|---------------------------|-------------|----------|
| Ethyl alcohol             | 64-17-5     | 10 - 20  |
| Non-hazardous ingredients | Proprietary | Balance  |

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

No hazards which require special first aid measures.

**Emergency telephone number**

Poisons Information Centre, Australia: 13 11 26

Poisons Information Centre, New Zealand: 0800 764 766

**Inhalation**

Remove to fresh air.

**Eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.

|   |   |
|---|---|
| <b>Skin contact</b>                       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.   |
| <b>Ingestion</b>                          | Rinse mouth thoroughly with water.  |
| <b>Self-protection of the first aider</b> | 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. Use personal protective equipment as required. See section 8 for more information. |

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

|                 |                           |
|-----------------|---------------------------|
| <b>Symptoms</b> | No information available. |
|-----------------|---------------------------|

**Indication of any immediate medical attention and special treatment needed**

|                        |                        |
|------------------------|------------------------|
| <b>Note to doctors</b> | Treat symptomatically. |
|------------------------|------------------------|

**SECTION 5: Firefighting measures****Suitable Extinguishing Media**

|                                     |   |
|-------------------------------------|---|
| <b>Suitable Extinguishing Media</b> | Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray. Alcohol resistant foam. |
|-------------------------------------|---|

|                                       |                           |
|---------------------------------------|---------------------------|
| <b>Unsuitable extinguishing media</b> | No information available. |
|---------------------------------------|---------------------------|

**Specific hazards arising from the chemical**

|   |   |
|---|---|
| <b>Specific hazards arising from the chemical</b> | Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |
|---|---|

**Special protective actions for fire-fighters**

|   |  |
|---|--|
| <b>Special protective equipment for fire-fighters</b> | 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**

|                             |  |
|-----------------------------|--|
| <b>Personal precautions</b> | Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. |
|-----------------------------|--|

|                          |                     |
|--------------------------|---------------------|
| <b>Other information</b> | Ventilate the area. |
|--------------------------|---------------------|

|                                 |   |
|---------------------------------|---|
| <b>For emergency responders</b> | Use personal protection recommended in Section 8. |
|---------------------------------|---|

**Environmental precautions**

|                                  |  |
|----------------------------------|--|
| <b>Environmental precautions</b> | Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. |
|----------------------------------|--|

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

|                                |  |
|--------------------------------|--|
| <b>Methods for containment</b> | Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. |
| <b>Methods for cleaning up</b> | 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**

|  |  |
|--|--|
| <b>Prevention of secondary hazards</b> | Clean contaminated objects and areas thoroughly observing environmental regulations. |
|--|--|

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

|                                       |  |
|---------------------------------------|--|
| <b>Advice on safe handling</b>        | Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. |
| <b>General hygiene considerations</b> | Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.  |

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

|                               |  |
|-------------------------------|--|
| <b>Storage Conditions</b>     | Keep containers tightly closed in a dry, cool and well-ventilated place. 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. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. |
| <b>Incompatible materials</b> | None known based on information supplied.  |

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

| Chemical name            | Australia                                    | ACGIH TLV      |
|--------------------------|--|----------------|
| Ethyl alcohol<br>64-17-5 | TWA: 1000 ppm<br>TWA: 1880 mg/m <sup>3</sup> | STEL: 1000 ppm |

**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**

|                             |         |
|-----------------------------|---------|
| <b>Engineering controls</b> | Showers |
|-----------------------------|---------|

Eyewash stations  
Ventilation systems.

#### Individual protection measures, such as personal protective equipment

|  |  |
|--|--|
| <b>Eye/face protection</b>             | Tight sealing safety goggles.  |
| <b>Skin and body protection</b>        | Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.<br>Antistatic boots.   |
| <b>Hand protection</b>                 | Wear suitable gloves. Impervious gloves.   |
| <b>Respiratory protection</b>          | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. |
| <b>Environmental exposure controls</b> | No information available.  |

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

#### Information on basic physical and chemical properties

|                        |                          |
|------------------------|--------------------------|
| <b>Physical state</b>  | Liquid                   |
| <b>Appearance</b>      | No information available |
| <b>Colour</b>          | white                    |
| <b>Odour</b>           | Alcohol.                 |
| <b>Odour threshold</b> | No information available |

| <u>Property</u>                                | <u>Values</u>       | <u>Remarks • Method</u> |
|--|---------------------|-------------------------|
| <b>pH</b>                                      |                     | None known              |
| <b>Melting point / freezing point</b>          | No data available   | None known              |
| <b>Initial boiling point and boiling range</b> | No data available   | None known              |
| <b>Flash point</b>                             | < 42.5 °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>                        | Immiscible 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>               |                     | None known              |
| <b>Kinematic viscosity</b>                     | No data available   | None known              |
| <b>Dynamic viscosity</b>                       | No data available   | None known              |
| <b>Explosive properties</b>                    | Not applicable      |                         |
| <b>Oxidising properties</b>                    | Not applicable      |                         |

#### Other information

|                         |                |
|-------------------------|----------------|
| <b>Molecular weight</b> | Not applicable |
| <b>VOC content</b>      | 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** Yes.

**Possibility of hazardous reactions**

**Possibility of hazardous reactions** None under normal processing.

**Conditions to avoid**

**Conditions to avoid** Heat, flames and sparks.

**Incompatible materials**

**Incompatible materials** None known based on information supplied.

**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**

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**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.

**Numerical measures of toxicity - Product Information**

No information available

The following values are calculated based on chapter 3.1 of the GHS document

**ATEmix (oral)** 40,809.20 mg/kg

**ATEmix (inhalation-dust/mist)** 675.70 mg/l

**Component Information**

| Chemical name | Oral LD50            | Dermal LD50 | Inhalation LC50                                      |
|---------------|----------------------|-------------|--|
| Ethyl alcohol | = 7060 mg/kg ( Rat ) | -           | = 116.9 mg/L ( Rat ) 4 h<br>= 133.8 mg/L ( Rat ) 4 h |

See section 16 for terms and abbreviations

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

|  |   |
|--|---|
| <b>Skin corrosion/irritation</b>         | Based on available data, the classification criteria are not met. |
| <b>Serious eye damage/eye irritation</b> | Based on available data, the classification criteria are not met. |
| <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>STOT - single exposure</b>            | Based on available data, the classification criteria are not met. |
| <b>STOT - repeated exposure</b>          | Based on available data, the classification criteria are not met. |
| <b>Aspiration hazard</b>                 | Based on available data, the classification criteria are not met. |

## **SECTION 12: Ecological information**

### Ecotoxicity

**Ecotoxicity** Harmful to aquatic life.

| Chemical name | Algae/aquatic plants | Fish  | Toxicity to microorganisms | Crustacea  |
|---------------|----------------------|---|----------------------------|--|
| Ethyl alcohol | -                    | LC50: 12.0 - 16.0mg/L (96h, Oncorhynchus mykiss)<br>LC50: >100mg/L (96h, Pimephales promelas)<br>LC50: 13400 - 15100mg/L (96h, Pimephales promelas) | -                          | LC50: 9268 - 14221mg/L (48h, Daphnia magna)<br>EC50: ≈2mg/L (48h, Daphnia magna) |

### Persistence and degradability

**Persistence and degradability** No information available.

### Bioaccumulative potential

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

### Component Information

| Chemical name | Partition coefficient |
|---------------|-----------------------|
| Ethyl alcohol | -0.35                 |

### Mobility

**Mobility in soil** No information available.

**Mobility** No information available.

**Other adverse effects**

**Other adverse effects** No information available.

**SECTION 13: Disposal considerations****Disposal methods**

**Waste from residues/unused products** Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

**SECTION 14: Transport information**

**ADG** Not regulated

**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****Australia**

See section 8 for national exposure control parameters

**Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)**

No poisons schedule number allocated

**Major hazard (accident/incident planning) regulation**

Verify that licence requirements are met

Hazardous chemical

Liquids with flash points <61°C kept above their boiling points at ambient conditions

Threshold quantity (T)  
200

**National pollutant inventory**

Subject to reporting requirement

| Chemical name           | National pollutant inventory         |
|-------------------------|--------------------------------------|
| Ethyl alcohol - 64-17-5 | 10 tonne/yr Threshold category 1 VOC |

**International Inventories**

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** 17-Dec-2024

**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         | 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**