

## **Section 1. Product and Manufacturer Identification**

**Product Name:** Growth Medium 1G

**Catalog Number:** 79544-1, 79544-2

**CAS number:** Contains:  
Hygromycin B (CAS# 31282-04-9)  
Geneticin (G418) Sulfate (CAS# 108321-42-2)  
Streptomycin sulfate (CAS# 3810-74-0)  
Penicillin G Sodium Salt (CAS# 69-57-8)

See section 3 for further details.

**Recommended Usage:** This product is intended for use in a research setting for the growth of cell culture.

This product is sold only for research use by qualified laboratory personnel, and is not to be used as a drug, medical device, food additive, cosmetic, nor household chemical. It is not to be used in diagnostic, therapeutic, consumer, and agricultural applications.

**Manufacturer Information:** BPS Bioscience, Inc.  
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San Diego, CA 92121 USA.  
Tel: 1-858-202-1401  
[www.bpsbioscience.com](http://www.bpsbioscience.com)

For a complete list of components shipped with a product, please review the product datasheet, which is available on our website at [www.bpsbioscience.com](http://www.bpsbioscience.com). A safety datasheet for each component is available upon request.

## **Section 2. Hazard(s) Identification**

### **Hazard Classification**

**Signal Word:** DANGER

**Hazard Pictograms:**



**Health Hazards:**

|                                     |             |
|-------------------------------------|-------------|
| Acute oral toxicity                 | Category 3  |
| Serious eye damage / eye irritation | Category 1  |
| Respiratory sensitization           | Category 1  |
| Skin sensitization                  | Category 1  |
| Reproductive Toxicity               | Category 1A |

**Physical Hazards:** Not hazardous

**Environmental Hazards:** Not hazardous

**Hazard Statement(s):**  
 H301 - Toxic if swallowed  
 H317 - May cause an allergic skin reaction  
 H318 - Causes serious eye damage  
 H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 H361 - Suspected of damaging fertility or the unborn child

**Precautionary Statements**

**Prevention:**  
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
 P264 - Wash hands thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P272 - Contaminated work clothing should not be allowed out of the workplace.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
 P281 - Use personal protective equipment as required.  
 P285 - In case of inadequate ventilation wear respiratory protection.

**Response:**

|                     |   |
|---------------------|---|
| <b>IF ON SKIN</b>   | <p>P302 + P352: Wash with plenty of soap and water.<br/>P308 + P313: IF exposed or concerned: Get medical advice/attention.</p> <p>P363: Wash contaminated clothing before reuse.</p>   |
| <b>IF SWALLOWED</b> | <p>P301 + P310: Immediately call a POISON CENTER or doctor/physician.</p> <p>P330 - Rinse mouth with copious amounts of water.</p>  |
| <b>IF IN EYES</b>   | <p>P305 + P351 + P338: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p>   |
| <b>IF INHALED</b>   | <p>P304 + P340: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P330: Rinse mouth with copious amounts of water.</p> <p>P342 + P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.</p> |

**Storage:** Follow storage recommendations from product datasheet.

**Disposal:** P501 - Dispose of contents/ container to an approved waste disposal plant

**Other Hazards:** Not Applicable

**HMIS**

|                     |                           |
|---------------------|---------------------------|
| <b>Health</b>       | <b>4 * Chronic Hazard</b> |
| <b>Flammability</b> | <b>0</b>                  |
| <b>Reactivity</b>   | <b>0</b>                  |

### **Section 3. Composition and Information on Ingredients**

| <b>Component</b>         | <b>CAS No.</b> | <b>Common Name</b> | <b>EINECS-No</b> | <b>Concentration</b> | <b>Weight-%</b> |
|--------------------------|----------------|--------------------|------------------|----------------------|-----------------|
| Streptomycin sulfate     | 3810-74-0      | -                  | 223-286-0        | 50-150 µg/mL         | 0.05-0.15       |
| Penicillin G Sodium Salt | 69-57-8        | -                  | 200-710-2        | 50-150 units/mL      | 0.05-0.15       |
| Geneticin                | 108321-42-2    | G418               | Not Listed       | 200 – 1200 µg/mL     | 0.2 – 1.2       |
| Hygromycin B             | 31282-04-9     | -                  | 250-545-5        | 25 – 600 µg/mL       | 0.025-0.6       |

See Section 11 for Toxicological Information. See product datasheet for formulation details. This product consists of cell culture media containing amino acids, sugars, and salts, plus the above chemical additives. Contains up to 10% fetal bovine serum or calf serum. The physical properties of this product have not been investigated thoroughly. We recommend handling all chemicals with caution.

Fetal bovine serum (FBS) is ISIA-certified and sourced from the United States of America. No viruses or bacteria are known to be present; however, appropriate precautions for biological materials should be used. This product is intended for research only and is not for direct administration into animals or humans.

### **Section 4. First Aid Measures**

#### **Description of First Aid measures**

**Skin contact:** Remove and wash affected articles of clothing immediately and rinse skin with water for 15 minutes. If concerned or if skin becomes irritated, seek medical attention.

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|                            |  |
|----------------------------|--|
| <b>Eye contact:</b>        | Rinse immediately with water for at least 15 minutes, including under the eyelids. Remove contact lenses, if present and easy to do. If eye irritation persists, seek medical attention. |
| <b>Ingestion:</b>          | Seek medical advice or call POISON CONTROL immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.                            |
| <b>Inhalation:</b>         | Remove to fresh air. If not breathing, give artificial respiration. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.                                      |
| <b>Notes to Physician:</b> | Treat symptomatically.   |

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

See hazard statements in Section 2 and toxicology statements in Section 11.

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

None

**Section 5. Fire Fighting Measures**

|  |   |
|--|---|
| <b>Conditions of flammability</b>                            | This product is not flammable.                                      |
| <b>Suitable extinguishing media</b>                          | Water spray. Carbon dioxide (CO <sub>2</sub> ). Foam. Dry chemical. |
| <b>Unsuitable extinguishing media</b>                        | No information available.   |
| <b>Special hazards arising from the substance or mixture</b> | None known.   |
| <b>Special protective equipment for firefighters</b>         | Standard procedure for chemical fires.                              |

**Section 6. Accidental Release Measures**

|  |  |
|--|--|
| <b>Personal precautions and protective equipment</b> | Ensure adequate ventilation, and avoid breathing vapors, mist or gas. Avoid dust/aerosol formation. Always wear recommended Personal Protective Equipment. See section 8 for more information. |
|--|--|

|   |   |
|---|---|
| <b>Emergency procedures</b>                                 | Evacuate personnel to safe areas. Wear Personal Protective Equipment and keep unprotected individuals away. |
| <b>Environmental precautions</b>                            | No special environmental precautions required. Avoid discharge into drains and waterways whenever possible. |
| <b>Methods and material for containment and cleaning up</b> | Soak up with inert absorbent material.  |
| <b>Reference to other sections</b>                          | See section 8 for more information.   |

## **Section 7. Handling and Storage**

|   |  |
|---|--|
| <b>Precautions for Safe Handling</b>                                | Use personal protective equipment as required. No special handling advice is necessary.  |
| <b>Precautions for protection against explosions and fires</b>      | The product is not flammable.  |
| <b>Conditions for safe storage, including any incompatibilities</b> | Keep container tightly sealed in a dry, cool and well-ventilated place.<br>Recommended storage temperature: As described in technical data sheet |

## **Section 8. Exposure Controls, Personal Protection**

### **Control Parameters**

| <b>Chemical Name</b>     | <b>OSHA PEL</b> | <b>OSHA PEL (Ceiling)</b> | <b>ACGIH OEL (TWA)</b> | <b>ACGIH OEL (STEL)</b> |
|--------------------------|-----------------|---------------------------|------------------------|-------------------------|
| Streptomycin sulfate     | None            | None                      | None                   | None                    |
| Penicillin G Sodium Salt | None            | None                      | None                   | None                    |
| Geneticin                | None            | None                      | None                   | None                    |
| Hygromycin B             | None            | None                      | None                   | None                    |

The lists that were valid during the creation of this document were used as basis.

**Engineering Measures** Ensure adequate ventilation, especially in confined areas.

### **Exposure Controls**

#### **Personal Protective Equipment (PPE)**

**Respiratory protection** In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standard, such as NIOSH (US) or CEN (EU).

**Hand protection** Handle with suitable impervious gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye protection** Tight sealing safety goggles

**Body protection** Wear suitable protective clothing.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** No special environmental precautions required.

### **Section 9. Physical and Chemical Properties**

#### **Physical and chemical properties**

|                                      |                   |
|--------------------------------------|-------------------|
| <b>Physical state</b>                | Liquid            |
| <b>Odor</b>                          | No data available |
| <b>Odor threshold</b>                | No data available |
| <b>pH</b>                            | 6-8               |
| <b>Molecular weight</b>              | No data available |
| <b>Melting Point / melting range</b> | -10°C to 0°C      |
| <b>Boiling point / boiling range</b> | No data available |

|   |                   |
|---|-------------------|
| <b>Flash point</b>                            | No data available |
| <b>Autoignition temperature</b>               | No data available |
| <b>Decomposition temperature</b>              | No data available |
| <b>Evaporation rate</b>                       | No data available |
| <b>Flammability (solid, gas)</b>              | No data available |
| <b>Upper explosion limit</b>                  | No data available |
| <b>Lower explosion limit</b>                  | No data available |
| <b>Vapor Pressure</b>                         | No data available |
| <b>Vapor density</b>                          | No data available |
| <b>Relative density</b>                       | No data available |
| <b>Specific gravity</b>                       | No data available |
| <b>Solubility</b>                             | No data available |
| <b>Partition coefficient: n-octanol/water</b> | No data available |
| <b>Viscosity</b>                              | No data available |
| <b>Explosive properties</b>                   | No data available |
| <b>Oxidizing properties</b>                   | No data available |
| <b>Other information</b>                      | No data available |

## **Section 10. Stability and Reactivity**

|   |   |
|---|---|
| <b>Chemical Stability</b>                 | Stable under normal conditions.   |
| <b>Possibility of hazardous reactions</b> | No dangerous reaction known under conditions of normal use.                                 |
| <b>Conditions to avoid</b>                | No data available   |
| <b>Incompatible materials</b>             | No dangerous reaction known under conditions of normal use.                                 |
| <b>Hazardous decomposition products</b>   | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Nitrogen oxides (NO <sub>x</sub> ) |
| <b>Polymerization</b>                     | Hazardous polymerization does not occur under conditions of normal use.                     |

## **Section 11. Toxicological Information**

### **Information on toxicological effects**

| <b>Chemical Name</b>     | <b>Oral LD50</b>                        | <b>Dermal LD50</b> | <b>Inhalation LD50</b>         |
|--------------------------|---|--------------------|--------------------------------|
| Streptomycin Sulfate     | = 430 mg/kg (Rat)                       | No data available  | No data available              |
| Penicillin G Sodium Salt | = 6916 mg/kg (Rat),<br>> 2 g/kg (Mouse) | No data available  | No data available              |
| Geneticin                | = 140 mg/kg<br>(mouse,<br>intravenous)  | No data available  | No data available              |
| Hygromycin B             | = 13 mg/kg (Rat)                        | No data available  | = 2220 µg/m <sup>3</sup> (Rat) |

|  |   |
|--|---|
| <b>Acute toxicity</b>  | Toxic if swallowed  |
| <b>Skin corrosion / irritation</b>                               | No data available   |
| <b>Serious eye damage / irritation</b>                           | No data available   |
| <b>Respiratory or skin sensitization</b>                         | May cause sensitization by inhalation and skin contact                                      |
| <b>Specific target organ toxicity (STOT) – single exposure</b>   | No data available   |
| <b>Specific target organ toxicity (STOT) – repeated exposure</b> | No data available   |
| <b>Carcinogenicity</b>   | No data available   |
| <b>Germ cell mutagenicity</b>                                    | No data available   |
| <b>Reproductive toxicity</b>                                     | May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility |
| <b>Aspiration hazard</b>   | No data available   |
| <b>Principle Routes of Exposure</b>                              | Respiratory organs, mouth, skin, and eyes.  |
| <b>Symptoms of exposure</b>                                      | No data available   |
| <b>Additional information</b>                                    | <a href="https://pubchem.ncbi.nlm.nih.gov/">https://pubchem.ncbi.nlm.nih.gov/</a>           |

## **Section 12. Ecological Information**

|   |  |
|---|--|
| <b>Ecotoxicity</b>                        | The ecological impact for this product has not been investigated thoroughly. |
| <b>Persistence and degradability</b>      | No information available   |
| <b>Bioaccumulative potential</b>          | No information available   |
| <b>Mobility in soil</b>                   | No information available   |
| <b>Results of PBT and vPvB assessment</b> | No information available   |
| <b>Other adverse effects</b>              | No information available   |

## **Section 13. Disposal Considerations**

### **Disposal of Product**

Avoid disposal of these reagents down the drain whenever possible. This material and its container must be disposed of in accordance with approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

### **Disposal of Contaminated Packaging**

Dispose of waste materials and contaminated packaging as unused components. Disposal must be in compliance with country (e.g., Canada, EU, Japan, etc.), federal, state and local regulations. If unsure of the applicable regulatory requirements, contact the authorities for information.

## **Section 14. Transport Information**

### **IATA / ADR / DOT-US / IMDG**

Not regulated in the meaning of transport regulations.

|                                |                |
|--------------------------------|----------------|
| <b>UN Number</b>               | Not applicable |
| <b>UN proper shipping name</b> | Not applicable |

|   |                |
|---|----------------|
| <b>Transport hazard class(es)</b>   | Not applicable |
| <b>Packing group</b>  | Not applicable |
| <b>Special Precautions for user</b>   | Not applicable |
| <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code</b> | Not applicable |

## **Section 15. Regulatory Information**

| <b>Chemical Name</b>     | <b>CAS #</b> | <b>US TSCA</b> |
|--------------------------|--------------|----------------|
| Streptomycin sulfate     | 3810-74-0    | Listed         |
| Penicillin G Sodium Salt | 69-57-8      | Not Listed     |
| Geneticin                | 108321-42-2  | Not Listed     |
| Hygromycin B             | 31282-04-9   | Not Listed     |

### **U.S. Federal Regulations**

#### **SARA 302 Components**

Not applicable

#### **SARA 313 Components**

Not applicable

#### **Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs)**

Product does not contain HAPs.

#### **CWA (Clean Water Act)**

Not applicable

#### **OSHA - Occupational Safety and Health Administration (Hazardous Materials)**

Not applicable

#### **CERCLA**

Not Applicable

#### **U.S. Department of Transportation**

Reportable Quantity (RQ): Not applicable

DOT Marine Pollutant: Not applicable

DOT Severe Marine Pollutant: Not applicable

#### **U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

### **U.S. State Regulations**

#### **California Prop 65**

**This product contains the following Proposition 65 chemicals:**

| <b>Chemical Name</b> | <b>CAS #</b> | <b>Weight-%</b> | <b>Category</b> |
|----------------------|--------------|-----------------|-----------------|
| Streptomycin sulfate | 3810-74-0    | 0.05-0.15       | Developmental   |

### **US State Right To Know Regulations**

| <b>Chemical Name</b>     | <b>Massachusetts</b> | <b>New Jersey</b> | <b>Pennsylvania</b> | <b>Illinois</b> | <b>Rhode Island</b> |
|--------------------------|----------------------|-------------------|---------------------|-----------------|---------------------|
| Streptomycin sulfate     | Not Listed           | Not Listed        | Not Listed          | Not Listed      | Not Listed          |
| Penicillin G Sodium Salt | Not Listed           | Not Listed        | Not Listed          | Not Listed      | Not Listed          |
| Geneticin                | Not Listed           | Not Listed        | Not Listed          | Not Listed      | Not Listed          |
| Hygromycin B             | Not Listed           | Not Listed        | Not Listed          | Not Listed      | Not Listed          |

### **International Inventories**

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| <b>Chemical Name</b>     | <b>CAS No</b> | <b>DSL</b> | <b>NDSL</b> | <b>EINECS</b> | <b>PICCS</b> | <b>ENCS/ ISHL</b> | <b>AICS</b> | <b>IECSC</b> | <b>KECL</b> |
|--------------------------|---------------|------------|-------------|---------------|--------------|-------------------|-------------|--------------|-------------|
| Streptomycin sulfate     | 3810-74-0     | Listed     | Not Listed  | 223-286-0     | Listed       | Listed            | Listed      | Listed       | KE-09605    |
| Penicillin G Sodium Salt | 69-57-8       | Listed     | Not Listed  | 200-710-2     | Listed       | Listed            | Listed      | Listed       | KE-11722    |
| Geneticin                | 108321-42-2   | Not Listed | Not Listed  | Not Listed    | Not Listed   | Not Listed        | Not Listed  | Listed       | Not Listed  |
| Hygromycin B             | 31282-04-9    | Not Listed | Not Listed  | 250-545-5     | Not Listed   | Listed            | Not Listed  | Listed       | Not Listed  |

### **WHMIS Hazard Class**

D2A - Very toxic materials

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

## **Section 16. Other Information**

**Revision Date:** July 17, 2024

### **Contact Information:**

**Phone:** 1-858-202-1401

**Email:** support@bpsbioscience.com

### **References**

- ECHA:<http://echa.europa.eu/>
- TOXNET:<http://toxnet.nlm.nih.gov/>
- eChemPortal:<http://www.echemportal.org/>
- LOLIdatabase:<https://www.chemadvisor.com/loli-database>

### **Abbreviations and acronyms**

TWA - Time-Weighted Average  
OELs - Occupational Exposure Limits  
STEL - Short Term Exposure Limit  
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
KECL - Korean Existing and Evaluated Chemical Substances  
ENCS - Japan Existing and New Chemical Substances  
IECSC - China Inventory of Existing Chemical Substances  
PICCS - Philippines Inventory of Chemicals and Chemical Substances  
AICS - Australian Inventory of Chemical Substances  
NZIoC - New Zealand Inventory of Chemicals  
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
CEPA - Canadian Environmental Protection Act  
EPA - Environmental Protection Agency  
OSHA - Occupational Safety and Health Administration of the US Department of Labor  
IATA - International Air Transport Association  
DOT - Department of Transportation  
IMDG - International Maritime Dangerous Goods  
ACGIH - American Conference of Governmental Industrial Hygienists  
NIOSH - National Institute for Occupational Safety and Health  
AIHA - American Industrial Hygiene Association  
HMIS - Department of Defense Hazardous Materials Information System  
NTP - National Toxicology Program  
IARC - International Agency for Research on Cancer

This product is for research use only and is not intended for human or animal diagnostic or therapeutic uses. The recipient is responsible for ensuring that, where applicable, existing laws

and guidelines are observed. All materials and mixtures may present unknown hazards and should be used with caution.

BPS Bioscience provides this information in good faith and is based on our present knowledge. This information shall not be taken as being all inclusive and is to be used only as a guide. This SDS does not constitute a warranty of any kind.

**End of Safety Data Sheet**