

Section 1. Product and Manufacturer Identification

Product Name: Growth Medium 2J

Catalog Number: 79812

CAS number: Contains:
Puromycin Dihydrochloride (CAS# 58-58-2)
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.
6405 Mira Mesa Blvd., Suite 100
San Diego, CA 92121 USA.
Tel: 1-858-202-1401
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. A safety datasheet for each component is available upon request.

Section 2. Hazard(s) Identification

Hazard Classification

Signal Word: Warning

Hazard Pictograms:



Health Hazards:

Skin sensitization	Category 1
Reproductive Toxicity	Category 2
Acute oral toxicity	Category 4

Environmental Hazards: Not hazardous

Hazard Statement(s): H302 - Harmful if swallowed
 H317 - May cause an allergic skin reaction
 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:

IF ON SKIN	<p>P302 + P352: Wash with plenty of soap and water. P308 + P313: IF exposed or concerned: Get medical advice/attention.</p> <p>P363: Wash contaminated clothing before reuse.</p>
IF SWALLOWED	<p>P301 + P310: Immediately call a POISON CENTER or doctor/physician.</p> <p>P330 - Rinse mouth with copious amounts of water.</p>
IF IN EYES	<p>P305 + P351 + P338: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p>
IF INHALED	<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

Health	4 * Chronic Hazard
Flammability	0
Reactivity	0

Section 3. Composition and Information on Ingredients

Component	CAS No.	Common Name	EINECS-No	Concentration	Weight-%
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
Puromycin Dihydrochloride	58-58-2	-	200-387-8	0.125 – 10 µg/mL	0.000125-0.01

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.

Eye contact:	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.
Ingestion:	Seek medical advice or call POISON CONTROL immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.
Inhalation:	Remove to fresh air. If not breathing, give artificial respiration. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
Notes to Physician:	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

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

Section 6. Accidental Release Measures

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

Section 7. Handling and Storage

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

Section 8. Exposure Controls, Personal Protection

Control Parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Streptomycin sulfate	None	None	None	None
Penicillin G Sodium Salt	None	None	None	None
Geneticin	None	None	None	None
Puromycin Dihydrochloride	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

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

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

Section 10. Stability and Reactivity

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

Section 11. Toxicological Information

Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LD50
Streptomycin Sulfate	= 430 mg/kg (Rat)	No data available	No data available
Penicillin G Sodium Salt	= 6916 mg/kg (Rat), > 2 g/kg (Mouse)	No data available	No data available
Geneticin	= 140 mg/kg (mouse, intravenous)	No data available	No data available
Puromycin Dihydrochloride	= 20 mg/kg (mouse, oral)	= 25 mg/kg (mouse, intraperitoneal)	No data available

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

Section 12. Ecological Information

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

UN Number	Not applicable
UN proper shipping name	Not applicable

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

Section 15. Regulatory Information

Chemical Name	CAS #	US TSCA
Streptomycin sulfate	3810-74-0	Listed
Penicillin G Sodium Salt	69-57-8	Not Listed
Geneticin	108321-42-2	Not Listed
Puromycin Dihydrochloride	58-58-2	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:

Chemical Name	CAS #	Weight-%	Category
Streptomycin sulfate	3810-74-0	0.05-0.15	Developmental

US State Right To Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
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
Puromycin Dihydrochloride	58-58-2	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).

Chemical Name	CAS No	DSL	NDSL	EINECS	PICCS	ENCS/ISHL	AICS	IECSC	KECL
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
Puromycin Dihydrochloride	58-58-2	Not Listed	Not Listed	200-387-8	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:

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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