

G418 Sulfate

SECTION 1: Identification

Product identifier: G418 Sulfate.

MediRes catalogue number: GC301011

Pack size: 1 g.

Recommended use: Antibiotic selection reagent for laboratory cell culture.

Restrictions on use: For research use only. Not for diagnostic, therapeutic, food, household or cosmetic use.

Supplier: MediRes Corp., 109 Elm Street, Sudbury, ON P3C 1T4, Canada. Telephone: +1 705-222-2847. Email: sales@medi-res.com.

Emergency telephone: +1 705-222-2847. For exposure or poisoning, contact a poison control centre or emergency medical service.

SECTION 2: Hazards identification

Classification: Skin sensitization, Category 1; respiratory sensitization, Category 1. Subcategories are not specified.

Hazard communication basis: GHS08 is used for respiratory sensitization. The exclamation pictogram for skin sensitization is omitted under pictogram precedence.

Signal word: DANGER

Hazard pictograms



GHS08 Health hazard

Code	Hazard statement
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Other hazards: Dust may trigger allergic symptoms in sensitized individuals. G418 is also known as Geneticin; it is not gentamicin.

Prevention: P261 - Avoid breathing dust, mist or spray. P264 - Wash thoroughly after handling. P280 - Wear protective gloves, protective clothing and eye protection. P272 - Contaminated work clothing should not leave the workplace. P284 - Wear respiratory protection when exposure cannot be adequately controlled.

Response: P302+P352 - IF ON SKIN: Wash with plenty of water. P333+P313 - If skin irritation or rash occurs: Get medical advice. P362+P364 - Take off contaminated clothing and wash it before reuse. P304+P340 - IF INHALED: Remove to fresh air and keep comfortable for breathing. P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTRE or doctor.

Storage and disposal: P501 - Dispose of contents and container through an approved waste service in accordance with applicable regulations.

Unknown acute toxicity: Percentage of ingredients with unknown acute toxicity is not available.

SECTION 3: Composition and information on ingredients

Substance. Purity is supplier-reported; residual impurity identities are not available.

Component	Chemical name	CAS No.	Content
Substance	G418 sulfate	108321-42-2	≥99%

HMIRA exemption: No registry number or exemption details are supplied.

SECTION 4: First aid measures

Inhalation: Remove to fresh air and keep comfortable for breathing. If breathing is difficult or symptoms persist, obtain medical attention. Trained personnel should provide assisted breathing or oxygen when indicated.

Eye contact: Immediately rinse with plenty of water for at least 15 minutes, lifting the eyelids. Remove contact lenses if present and easy to do; continue rinsing. Obtain medical attention if irritation persists.

Skin contact: Remove contaminated clothing. Wash skin thoroughly with soap and water. Obtain medical attention for persistent irritation or rash. Wash contaminated clothing before reuse.

Ingestion: Rinse mouth. Do not induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a poison control centre or doctor.

Symptoms and effects: Skin rash, itching or redness; coughing, wheezing, chest tightness or breathing difficulty. Allergic symptoms may be delayed.

Immediate care and treatment: Treat symptomatically and according to exposure. No product-specific antidote is identified. Seek urgent care for significant breathing difficulty.

SECTION 5: Fire fighting measures

Suitable extinguishing media: Use water spray, dry chemical, carbon dioxide or foam appropriate to the surrounding fire.

Unsuitable media: Avoid a solid water jet that may spread spilled material.

Specific fire hazards: Combustible solid according to the supplier. Avoid dispersing dust. Hazardous decomposition fumes may form during fire.

Firefighter protection: Wear self-contained breathing apparatus and full protective equipment. Cool exposed containers with water spray when safe. Contain contaminated firefighting water.

SECTION 6: Accidental release measures

Personal precautions: Restrict access to trained personnel. Ventilate the area and wear the protection described in Section 8. Avoid contact and aerosol or dust generation.

Containment and cleanup: Collect powder carefully without raising dust; do not dry sweep or use compressed air. Place waste in closed, labelled, compatible containers. Prevent entry into drains and waterways. Obtain specialist help for large or uncontrolled spills.

SECTION 7: Handling and storage

Safe handling: Use trained laboratory personnel and appropriate ventilation. Avoid inhalation, ingestion and skin or eye contact. Do not eat, drink or smoke during handling. Wash hands after use. Prevent dust formation and airborne dispersal.

Storage conditions: Store at 2–8 °C, tightly closed, in a dry, ventilated place. Keep separate from oxidizers and food. Avoid heat and ignition sources.

Incompatibilities: Strong oxidizing agents. Additional product-specific incompatibility data are not available.

SECTION 8: Exposure controls and personal protection

Control parameters: Product-specific occupational exposure limits and biological exposure indices are not available.

Engineering controls: Handle powder in a chemical fume hood or suitable ventilated enclosure. Avoid aerosol and dust formation. Provide eyewash and safety-shower facilities.

Skin and hand protection: Wear chemical-resistant gloves and a laboratory coat. Select glove material and replacement interval using the glove manufacturer's compatibility data for the product and exposure duration.

Eye and face protection: Wear chemical splash goggles. Add a face shield where substantial splashing is possible.

Respiratory protection: Respiratory protection is not a substitute for ventilation. If ventilation cannot control exposure, use an approved respirator selected for the contaminant and workplace exposure. Emergency responders require suitable supplied-air protection.

SECTION 9: Physical and chemical properties

Property	Information
Physical state	Solid powder
Colour / appearance	White.
Odour	No data available.
Odour threshold	No data available.
pH	No data available.
Melting / freezing point	No data available.
Boiling point / range	No data available.
Flammability	See Section 2; quantitative mixture data are not available.
Lower / upper explosive limits	No data available.
Flash point	No data available.
Autoignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic viscosity	No data available.
Solubility	No data available.
Partition coefficient (n-octanol/water)	No data available.
Vapour pressure	No data available.
Relative density	No data available.
Relative vapour density	No data available.
Particle characteristics	No particle-size data available.

SECTION 10: Stability and reactivity

Reactivity: Strong oxidizing agents. Additional product-specific incompatibility data are not available.

Chemical stability: Stable under the recommended storage conditions.

Possibility of hazardous reactions: No data available.

Conditions to avoid: Excess heat, ignition sources and direct sunlight; avoid contact with incompatible materials.

Hazardous decomposition products: Product-specific data are not available. Hazardous fumes may form during fire or thermal decomposition.

SECTION 11: Toxicological information

Likely exposure routes: Skin and eye contact, accidental ingestion and inhalation of dust.

Endpoint	Information
Acute toxicity	No data available.
Skin corrosion / irritation	No data available.
Serious eye damage / irritation	No data available.
Respiratory / skin sensitization	May cause allergic skin reactions and respiratory sensitization.
Germ cell mutagenicity	No data available.
Carcinogenicity	No data available.
Reproductive toxicity	No data available.
STOT, single exposure	No data available.
STOT, repeated exposure	No data available.
Aspiration hazard	No data available.

Immediate and delayed effects: Skin rash, itching or redness; coughing, wheezing, chest tightness or breathing difficulty. Allergic symptoms may be delayed.

Numerical measures: Values stated above are source-reported. Other LD50, LC50 and mixture acute toxicity estimates are not available.

SECTION 12: Ecological information

Ecotoxicity: No data available.

Persistence and degradability: No data available.

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

Other adverse effects: No additional data available. Avoid uncontrolled environmental release.

SECTION 13: Disposal considerations

Disposal methods: Collect unused reagent, contaminated absorbent and containers for disposal through an approved laboratory chemical-waste service. Do not discharge to drains. Empty containers may retain residues. Follow applicable local, provincial and federal waste requirements.

SECTION 14: Transport information

Transport status: The supplier reports the product is not regulated as dangerous goods under IATA, IMDG and US DOT.

UN transport information: UN number, proper shipping name, transport class and packing group: not assigned by the supplier.

Canadian TDG: Canadian TDG classification data are not available.

Environmental transport hazards: No transport-specific environmental hazard data available.

Special precautions: Ship with wet ice. Keep containers tightly closed and protected from damage.

Transport in bulk under IMO instruments: Not applicable to the packaged laboratory product.

SECTION 15: Regulatory information

Canada: Hazard communication uses the 16-section WHMIS SDS structure. Hazard information is stated in Section 2. Canadian inventory status, product-specific regulatory listings and HMIRA exemption information are not available.

Other jurisdictions: Product-specific regulatory determinations are not available. Research-use designation does not establish an exemption from chemical or transport requirements.

SECTION 16: Other information

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Abbreviations: GHS: Globally Harmonized System; WHMIS: Workplace Hazardous Materials Information System; STOT: specific target organ toxicity; LD50/LC50: median lethal dose/concentration; ATE: acute toxicity estimate; TDG: Transportation of Dangerous Goods; HMIRA: Hazardous Materials Information Review Act.

Disclaimer: This information is intended as guidance for safe handling, use, storage, transport and disposal of the identified material. It is not a warranty or quality specification and may not apply to other formulations, combinations or processes. No batch-specific test data are implied by reference chemical information.

End of Safety Data Sheet