

Safety Data Sheet

#59693889 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
Geneticin disulfate (G418 sulfate)	108321-42-2	C20H40N4O10·2H2SO4	10	19 Jul 2026

SECTION 1

Identification

1.1 Product identifier

Product name	Geneticin disulfate (G418 sulfate)
CAS number	108321-42-2
EC / EINECS number	Not applicable
Chemical formula	C20H40N4O10·2H2SO4
Molecular weight	692.71
SMILES	CC([C@@H]1[C@H]([C@@H]([C@H]([C@H](O1)O[C@@H]2[C@H](C[C@H]([C@@H]([C@H]2O)O[C@H]3[C@H]([C@@H]([C@](CO3)(C)O)NC)O)N)N)O)O)O.OS(=O)(=O)O.OS(=O)(=O)O

1.2 Relevant identified uses of the substance or mixture and uses advised against

For research and development. Laboratory chemicals. Manufacture of substances.
Not suitable for human or veterinary purposes.

1.3 Details of the supplier of the safety data sheet

Molekula Limited
1 Millennium Way, Newton Aycliffe
Durham, DL5 6JW, United Kingdom
info@molekula.com · +44 (0) 3302 000333

1.4 Emergency telephone number

0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

2.1 Classification of the substance or mixture

Skin Sens. 1; H317
Resp. Sens. 1; H334

2.2 Label elements



DANGER

CODE	HAZARD STATEMENT
------	------------------

H317	May cause an allergic skin reaction
------	-------------------------------------

H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
------	---

CODE	PRECAUTIONARY STATEMENT
------	-------------------------

P260	Do not breathe dust/fume/gas/mist/vapours/spray
------	---

P264	Wash thoroughly after handling
------	--------------------------------

P280	Wear protective gloves/protective clothing/eye protection/face protection
------	---

2.3 Other hazards

Not applicable

SECTION 3

Composition / information on ingredients

3.1 Substances

Name	Geneticin disulfate (G418 sulfate)
------	------------------------------------

CAS number	108321-42-2
------------	-------------

EC number	600-864-4
-----------	-----------

Concentration / purity	<i>Not applicable</i>
------------------------	-----------------------

Classification according to Regulation (EC) No 1272/2008	Skin Sens. 1; H317 Resp. Sens. 1; H334
--	---

Hazard statements	H317, H334
-------------------	------------

Acute toxicity estimate (ATE)	<i>No data available</i>
-------------------------------	--------------------------

Impurities / stabilising additives	<i>Not applicable</i>
------------------------------------	-----------------------

SECTION 4

First-aid measures

4.1 Description of first aid measures

Inhalation *Not applicable*

Skin contact *Not applicable*

Eye contact *Not applicable*

Ingestion *Not applicable*

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

Not applicable

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5

Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media *Not applicable*

Unsuitable extinguishing media *Not applicable*

5.2 Special hazards arising from the substance or mixture

Not applicable

5.3 Advice for firefighters

Not applicable

SECTION 6

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Not applicable

6.2 Environmental precautions

Not applicable

6.3 Methods and material for containment and cleaning up

Not applicable

6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

7.1 Precautions for safe handling

Not applicable

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature 2 to 8 °C

Conditions for safe storage (incompatibilities) Store in original container, tightly closed, in a cool, well-ventilated place. Keep upright and away from incompatible materials.

7.3 Specific end use(s)

See Section 1.2.

SECTION 8

Exposure controls / personal protection

8.1 Control parameters

Occupational exposure limits (OEL / WEL) *Not applicable*

DNEC/PNEC data *Not applicable*

8.2 Exposure controls

Eye / face protection Safety glasses
Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.

Skin / hand protection Nitrile gloves Thickness: 0.11mm. Breakthrough time: 480mins.

Respiratory protection Self-contained breathing apparatus
Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.

Other protection *No data available*

Environmental exposure controls *No data available*

SECTION 9

Physical & chemical properties

9.1 Information on basic physical and chemical properties

Appearance / physical state Powder
DERIVED FROM: LITERATURE

Colour *Not applicable*

Odour *Not applicable*

Melting / freezing point *Not applicable*

Boiling point	<i>Not applicable</i>
Flammability	<i>No data available</i>
Lower and upper explosion limit	<i>No data available</i>
Flash point	<i>Not applicable</i>
Auto-ignition temperature	<i>Not applicable</i>
Decomposition temperature	<i>No data available</i>
pH	<i>Not applicable</i>
Acidity	Neutral DERIVED FROM: LITERATURE
Kinematic viscosity	<i>No data available</i>
Solubility	<i>Not applicable</i>
Partition coefficient n-octanol/water (log value)	<i>Not applicable</i>
Vapour pressure	<i>Not applicable</i>
Density (g/mL)	1 g/mL DERIVED FROM: LITERATURE
Relative vapour density	<i>No data available</i>
Particle characteristics	<i>No data available</i>

9.2 Other information

No data available

SECTION 10

Stability & reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Not applicable

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Not applicable

10.5 Incompatible materials

Not applicable

10.6 Hazardous decomposition products

Not applicable

SECTION 11

Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (LD50 / LC50) *Not applicable*

Skin corrosion / irritation *Not applicable*

Eye corrosion / irritation *Not applicable*

Respiratory / skin sensitisation *Not applicable*

Carcinogenicity *Not applicable*

Mutagenicity *Not applicable*

Reproductive toxicity *Not applicable*

STOT (single / repeated exposure) *Not applicable*

Aspiration hazard *Not applicable*

11.2 Information on other hazards

Not applicable

SECTION 12

Ecological information

12.1 Toxicity

Not applicable

12.2 Persistence and degradability

Not applicable

12.3 Bioaccumulative potential

Not applicable

12.4 Mobility in soil

Not applicable

12.5 Results of PBT and vPvB assessment

Not applicable

12.6 Endocrine disrupting properties

See Section 11.2.

12.7 Other adverse effects

No data available

SECTION 13

Disposal considerations

13.1 Waste treatment methods

Dispose of contents/container in accordance with national regulations.

SECTION 14

Transport information

14.1 UN number or ID number

Not applicable

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class(es)

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

Not applicable

14.6 Special precautions for user

Special precautions for user *Not applicable*

Transport category *Not applicable*

Tunnel code *Not applicable*

Packing instruction (ADR) *Not applicable*

Packing instruction (IMDG) *Not applicable*

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15

Regulatory information

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

Substance-specific regulations (e.g. licences) *No data available*

REACH code Y110

ECHA notification *Not applicable*

15.2 Chemical safety assessment

Not applicable

SECTION 16

Other information

**Revision notes / other
information**

Not applicable

This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.