

Safety Data Sheet

G-418 Sulfate Solution, 100 % Activity (50 mg/ml)

According to Regulation (EC) No. 1907/2006 (REACH)

Date of compilation 01.03.2022

Revision Date 07.10.2024

Version 003/10.2024

Replaces version of 21.06.2024 (Version 002/06.2024)

Section 1 Identification of the substance/mixture and of the company/undertaking

Product identifiers

Product name: G-418 Sulfate Solution, 100 % Activity (50 mg/ml)

Catalogue No.: G418-H, G418-B

REACH No.: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.

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

Identified uses: Laboratory chemicals, Manufacture of substances
For research and development or in-vitro diagnostic use only.
Not for therapeutic use. Not for use on human subjects.

Details of the supplier of the safety data sheet

Company: Capricorn Scientific GmbH
Auf der Lette 13 A
35085 Ebsdorfergrund
Germany
Phone: +49 6424 94464 0
E-Mail: info@capricorn-scientific.com
Website: www.capricorn-scientific.com

Emergency telephone number

Emergency Phone: +49 6424 94464 0 (on workdays, Mon. to Fri. from 8:00 – 16:00 h CET/CEST)

Safety Data Sheet

G-418 Sulfate Solution, 100 % Activity (50 mg/ml)

According to Regulation (EC) No. 1907/2006 (REACH)

Date of compilation 01.03.2022

Revision Date 07.10.2024

Version 003/10.2024

Replaces version of 21.06.2024 (Version 002/06.2024)

Section 2 Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:

Skin sensitization Category 1, H317

Respiratory sensitization Category 1, H334

For the full text of the H-Statements mentioned in this Section, see below.

Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram



Signal Word

Danger

Hazard statements:

H317 May cause an allergic skin reaction

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

Precautionary statements:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P272 Contaminated work clothing should not be allowed out of the Workplace.

P280 Wear protective gloves.

P284 Wear respiratory protection.

P302 + P352 IF ON SKIN: Wash with plenty of water.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

Supplemental Hazard Statements

none

Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Safety Data Sheet

G-418 Sulfate Solution, 100 % Activity (50 mg/ml)

According to Regulation (EC) No. 1907/2006 (REACH)

Date of compilation 01.03.2022

Revision Date 07.10.2024

Version 003/10.2024

Replaces version of 21.06.2024 (Version 002/06.2024)

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Section 3

Composition/information on ingredients


Substances

not relevant (mixture)

Mixture

Synonyms:

Geneticin Sulfate,
(1S,2S,3R,4S,6R)-4,6-Diamino-3-((5R)-2-amino-2-deoxy-5-[(1S)-1-hydroxyethyl]-
 α -D-xylopyranosyl)oxy)-2-hydroxycyclohexyl 3-deoxy-4-C-methyl-3-(methylamino)-
 β -D-arabinopyranoside sulfate (1:2)

Identification	Chemical name/Classification	Concentration
CAS: 108321-42-2	G418 Disulfate	$\geq 0,1\%$
EC: 600-864-4	Skin Sens. 1; H317	
Index: Non-applicable	Resp. Sens. 1; H334	
REACH: Non-applicable		

For the full text of the H-Statements mentioned in this Section, see Section 2.

Section 4

First aid measures

Description of first aid measures

General notes

Show this material safety data sheet to the doctor in attendance

Following skin contact

After contact with skin, wash immediately with plenty of water and soap.
If skin irritation occurs: Get medical advice/attention.

Following eye contact

Remove contact lenses. Rinse immediately carefully and thoroughly with eyebath or water. If eye irritation persists: Get medical advice/attention.

Following ingestion

Do NOT induce vomiting. Call a doctor. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person or a person with cramps.

Following inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Safety Data Sheet

G-418 Sulfate Solution, 100 % Activity (50 mg/ml)

According to Regulation (EC) No. 1907/2006 (REACH)

Date of compilation 01.03.2022

Revision Date 07.10.2024

Version 003/10.2024

Replaces version of 21.06.2024 (Version 002/06.2024)

Section 5 Firefighting measures

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x), Sulfur oxides

Not combustible. Ambient fire may liberate hazardous vapours.

Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions Do not let product enter drains.

Methods and material for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material. Dispose of properly. Clean up affected area.

Reference to other sections For disposal see section 13.

Safety Data Sheet

G-418 Sulfate Solution, 100 % Activity (50 mg/ml)

According to Regulation (EC) No. 1907/2006 (REACH)

Date of compilation 01.03.2022

Revision Date 07.10.2024

Version 003/10.2024

Replaces version of 21.06.2024 (Version 002/06.2024)

Section 7 Handling and storage

Precautions for safe handling

Advice on safe handling	Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols
Hygiene measures	Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Storage conditions	Keep tightly closed in properly labelled containers; store at <-15°C.
Storage class	12: Non Combustible Liquids (TRGS 510)

Specific end use

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

Section 8 Exposure controls/personal protection

Control parameters	Ingredients with workplace control parameters
Exposure controls	Personal protective equipment
Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves.

Full contact:	Material: Nitrile rubber	Minimum layer thickness: 0,11 mm	Break through time: 480 min
Splash contact:	Material: Nitrile rubber	Minimum layer thickness: 0,11 mm	Break through time: 480 min

Body Protection	Protective clothing
-----------------	---------------------

Respiratory protection

Required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter Type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Control of environmental exposure	Do not let product enter drains.
-----------------------------------	----------------------------------

Safety Data Sheet

G-418 Sulfate Solution, 100 % Activity (50 mg/ml)

According to Regulation (EC) No. 1907/2006 (REACH)

Date of compilation 01.03.2022

Revision Date 07.10.2024

Version 003/10.2024

Replaces version of 21.06.2024 (Version 002/06.2024)

Section 9 Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Colour	No data available
Odour (Threshold)	Odorless
Melting/freezing point	No data available
Initial boiling point and range	No data available
Flammability (solid, gas)	No data available
Upper/lower explosion limit	Not classified as explosive
Flash point	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
pH	No data available
Viscosity - Kinematic:	No data available
- Dynamic:	No data available
Water solubility	at 20 °C soluble
Partition coefficient [n-octanol/water]	No data available
Vapour pressure	No data available
Density/Relative density	No data available
Relative vapour density	No data available
Particle characteristics	No data available

Other safety information No data available

Section 10 Stability and Reactivity

Reactivity	No data available
Chemical stability	Product is chemically stable under standard ambient conditions (20 °C).
Possibility of hazardous reactions	Violent reactions possible with the generally known reaction partners of water.
Conditions to avoid	No information available
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	In the event of fire: see section 5

Safety Data Sheet

G-418 Sulfate Solution, 100 % Activity (50 mg/ml)

According to Regulation (EC) No. 1907/2006 (REACH)

Date of compilation 01.03.2022

Revision Date 07.10.2024

Version 003/10.2024

Replaces version of 21.06.2024 (Version 002/06.2024)

Section 11 Toxicological information

Information on toxicological effects

Mixture

Acute toxicity	Oral: No data available Inhalation: No data available Dermal: No data available
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	Mixture may cause allergy or asthma symptoms or breathing difficulties if inhaled. Mixture may cause an allergic skin reaction.
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity: - single exposure - repeated exposure	No data available No data available
Aspiration hazard	No data available

Additional Information

Endocrine disrupting properties

Product

Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Safety Data Sheet

G-418 Sulfate Solution, 100 % Activity (50 mg/ml)

According to Regulation (EC) No. 1907/2006 (REACH)

Date of compilation 01.03.2022

Revision Date 07.10.2024

Version 003/10.2024

Replaces version of 21.06.2024 (Version 002/06.2024)

Components

G418 Disulfate

Acute toxicity	Oral: LD50 Oral - Rat - > 5.000 mg/kg Remarks: (RTECS) (in analogy to similar products) Inhalation: No data available Dermal: No data available
Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory/skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity:	
- single exposure	No data available
- repeated exposure	No data available
Aspiration hazard	No data available

Section 12 Ecological information

Toxicity [Mixture]	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Safety Data Sheet

G-418 Sulfate Solution, 100 % Activity (50 mg/ml)

According to Regulation (EC) No. 1907/2006 (REACH)

Date of compilation 01.03.2022

Revision Date 07.10.2024

Version 003/10.2024

Replaces version of 21.06.2024 (Version 002/06.2024)

Endocrine disrupting properties

Product

Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other adverse effects No data available

Components [G418 Disulfate] No data available

Section 13

Disposal considerations

Waste treatment methods

Product

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. 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.

Contaminated packaging Dispose of as unused product

Product / Packaging disposal: No data available

Waste codes / waste designations according to LoW: No data available

Waste treatment-relevant information: No data available

Sewage disposal-relevant information: No data available

Other disposal recommendations: No data available

Safety Data Sheet

G-418 Sulfate Solution, 100 % Activity (50 mg/ml)

According to Regulation (EC) No. 1907/2006 (REACH)

Date of compilation 01.03.2022

Revision Date 07.10.2024

Version 003/10.2024

Replaces version of 21.06.2024 (Version 002/06.2024)

Section 14 Transport Information

In accordance with ADR / RID / IMDG / IATA

ADR/RID	IMDG	IATA
UN number		
-	-	-
UN proper shipping name		
Not dangerous goods	Not dangerous goods	Not dangerous goods
Transport hazard classes		
-	-	-
Packaging group		
-	-	-
Environmental hazards		
no	Marine pollutant: no	no

Special precautions for user No data available

Maritime transport in bulk according to IMO instruments Not classified as dangerous in the meaning of transport regulations

Section 15 Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Other regulations

Take note of Dir 94/33/EC on the protection of young people at work.

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

Safety Data Sheet

G-418 Sulfate Solution, 100 % Activity (50 mg/ml)

According to Regulation (EC) No. 1907/2006 (REACH)

Date of compilation 01.03.2022

Revision Date 07.10.2024

Version 003/10.2024

Replaces version of 21.06.2024 (Version 002/06.2024)

Section 16

Other information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge of the chemical substance or mixture and is applicable to the product regarding appropriate safety precautions. It does not represent any guarantee of the properties of the product.

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways;
ADR - Agreement concerning the International Carriage of Dangerous Goods by Road;
AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight;
CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation;
DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response;
EmS - Emergency Schedule; ENCS - Existing & New Chemical Substances (Japan);
ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice;
IARC - International Agency for Research on Cancer; IATA - International Air Transport Association;
IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk;
IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization;
IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods;
IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan);
ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory;
LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose);
MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified;
NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level;
NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals;
OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention;
PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances;
(Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals;
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature;
SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory;
TSCA - Toxic Substances Control Act (United States); UN - United Nations;
UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative