

Material safety data sheet

according to 1907/2006/EG, Article 31



GENAXXON

b i o s c i e n c e

Product number : M3117

Product name :

Geneticin disulfate (G418) Powder (min. 98% DC)

1. Identification of the substance/preparation and of the company

Product identifier

Product Name: Geneticin disulfate (G418) Powder (min. 98% DC)

Catalogue Number: M3117

CAS Number: 108321-42-2

EC Number: -

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

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

No further relevant information available.

Application of the substance/the preparation

Laboratory chemical

Chemical analytics

Antibiotic for research usage

1.3. Details of the supplier of the safety data sheet

Manufacturer /Supplier:

Genaxxon bioscience GmbH, Söflinger Str. 70, 89077 Ulm/Germany.

Tel.: +49 (0)731 3608 123, info@genaxxon.com

Further information available from: General Management

Emergency telephone number:

Poison Information Centre Mainz, Germany, Tel.: +49 (0)6131 19240 / 24 h

NOTE: If this product is a kit or supplied with more than one material, please refer to the MSDS for each component for hazard information.

Product Use:

This products are for laboratory research use only and are not intended for human or animal diagnostics, therapeutics or other clinical uses.

2. Hazardous identification

2.1. Classification of the substance/preparation/mixture

Classification according to Regulation (EC) No 1272/2008

Skin Sens. 1 H317 May cause an allergic skin reaction

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Classification according to European Directive 67/548/EEC or Directive 1999/45/EC.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labeled according to the CLP regulation.

Pictogram(s)



GHS08

Signal word: Danger

Hazard determining components of labelling:

Geneticin

Hazard statement(s)

H317 May cause an allergic skin reaction

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

Precautionary statements

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

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

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

Results of PBT and vPvB assessment

The substance does not have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended. Does not contain any PMT or vPvM components.

3. Composition/information on ingredients

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3.2. Chemical characterization: Substances

Dangerous components		
CAS No.: 108321-42-2 EC No.: --- Index No.: --- Reach No.: ---	Geneticin disulfate (G418) ----- Resp. Sens. 1 - H334; Skin Sens. 1 - H317:	<=100%

Additional information: For the wording of the listed hazard phrases refer to section 16.

4. First-aid measures

4.1. Description of first aid measures

General information: Seek immediate medical advice.

After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

After skin contact:

Wash off with plenty of water.

If skin irritation continues, consult a doctor.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth.

If symptoms persist, consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed: No further relevant information available.

Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing agents:

Water Spray. Carbon Dioxide. Dry chemical powder, or appropriate foam. Fight larger fires with water spray or alcohol resistant foam.

5.2. Special hazards arising from the substance or mixture:

Formation of toxic gases is possible during heating or in case of fire.

In case of a fire, the following can be released:

Carbon oxides (CO, CO₂)

Nitrogen oxides (NO_x),

5.3. Advice for fire fighters:

Protective equipment:

Mouth respiratory protective device.

Wear self-contained respiratory protective device.

Additional information:

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Contain escaping vapours with water.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid formation of dust.

Do not inhale dust.

Avoid substance contact.

Ensure adequate ventilation.

Use respiratory protective device against the effects of fumes/dust/aerosol.

6.2. Environmental precautions: Do not allow product to enter sewage system, surface or ground water.

Discharge into the environment must be avoided.

6.3. Methods and materials for containment and cleaning up:

Soak with inert absorbent material and dispose of as hazardous waste. Keep suitable, closed containers for disposal.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Clean up affected area.

6.4. Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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7. Handling and storage

7.1. Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Avoid contact with skin and eyes.

Prevent formation of dust.

Any unavoidable deposit of dust must be regularly removed.

Information about fire – and explosion protection:

Keep respiratory protective device available.

7.2. Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Keep receptacles tightly sealed.

Store only in the original receptacle.

Containers which are opened must be carefully resealed.

Information about storage in one common storage facility: No special measures required.

Further information about storage conditions:

Keep container sealed.

Recommended storage temperature: +2°C - +8°C

Storage class: 10-13

7.3. Specific end use(s): No further relevant information available.

8. Exposure controls/personal protection

8.1. Control parameters

Ingredients with limit values that require monitoring at the workplace: not required.

Additional information: The lists valid during the making were used as basis.

8.2. Exposure controls:

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with eyes and skin.

Store protective clothing separately.

Vacuum clean contaminated clothing. Do not blow or brush off contamination.

Immediately remove all soiled and contaminated clothing.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter P1 (EN 143).



Protection of hands:



Protective gloves (EN 374)

The glove material has to be impermeable and resist ant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact gloves made of the following materials are suitable:

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

Value for permeation: Level: >480 min.

As protection from splashes gloves made of the following materials are suitable:

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Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

Value for the permeation: Level ≥ 480 min..

Eye/face protection: Safety glasses



Gauze goggles

Body protection:

Use protective suit.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Information

Appearance

Form: Powder
Colour: White to off-white
Odour: Odourless

pH value at 20°C: not determined

Change in conditions

Melting point/Melting range: Undetermined
Boiling point/Boiling range: Undetermined

Flash point: Not applicable

Flammability (solid, gaseous): Product is not flammable

Decomposition temperature: Not determined

Self-ignition: Product is not self-igniting

Danger of explosion: Product does not present an explosion hazard

Explosion limits:

Lower: Not determined
Upper: Not determined

Vapour pressure: Not applicable

Density (20°C): Not determined

Bulk density at 20°C: Not determined

Solubility in / Miscibility with (water, 20°C): Soluble

Partition coefficient (n-octanol/water): Not determined

Viscosity:

Dynamic: Not applicable
Kinematic: Not applicable

Solvent content:

Organic solvents: 0.0%
VOC (EC) 0.00%

Other information: No further relevant information available.

9.2. Other information:

Information with regard to physical hazard classes

Explosives: Void ·

Flammable gases: Void ·

Aerosols: Void ·

Oxidising gases: Void ·

Gases under pressure: Void ·

Flammable liquids: Void ·

Flammable solids: Void ·

Self-reactive substances and mixtures: Void ·

Pyrophoric liquids: Void ·

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Pyrophoric solids: Void
Self-heating substances and mixtures: Void
Substances and mixtures, which emit flammable gases in contact with water: Void
Oxidising liquids: Void
Oxidising solids: Void
Organic peroxides: Void
Corrosive to metals: Void
Desensitised explosives: Void

10. Stability and reactivity

10.1. Reactivity: No further relevant information available.

10.2. Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3. Possibility of hazardous reactions: No dangerous reactions known.

10.4. Conditions to avoid: No further relevant information available.

10.5. Incompatible materials: No further relevant information available.

10.6. Hazardous decomposition products: In the event of fire: See chapter 5 of this data sheet.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity:

LD50/LC50 values relevant for classification

Quantitative data on the toxicological effect of this product are not available.

Primary irritant effect

on the skin: No further relevant data available.

on the eye: No further relevant data available.

After inhalation: No further relevant data available.

Sensitization: No sensitizing effects known.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

Specific target organ toxicity - repeated exposure

Aminoglycosides are associated with significant nephrotoxicity and/or ototoxicity.

Liver – Irregularities - Based on Human Evidence

STOT-single exposure: Based on available data, the classification criteria are not met.

STOT-repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties: None of the ingredients is listed.

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

The product should be treated with usual precautions while handling chemicals.

12. Ecological Information

12.1. Toxicity

Aquatic toxicity: No further relevant information available

12.2. Persistence and degradability: No further relevant information available

12.3. Bioaccumulative potential: No further relevant information available

12.4. Mobility in soil: No further relevant information available

12.5. Results of PBT and vPvB assessment

The substance does not have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended. Does not contain any PMT or vPvM components.

12.6. Endocrine disrupting properties: The product does not contain substances with endocrine disrupting properties.

12.7. Other adverse effects

Additional ecological information

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): hazardous for water. Do not allow product to reach ground water, water course or sewage system.

13. Disposal considerations

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13.1. Waste treatment methods

Recommendation:

Chemicals must be disposed of in compliance with the respective national regulations. Must not be disposed together with household garbage. Do not allow product to reach sewage system. Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations. Packagings that may not be cleansed are to be disposed of in the same manner as the product.

Recommended cleaning agents: Water, if necessary, together with cleansing agents.

14. Transport information

14.1. UN-Number

ADR/RID, ADN, IMDG, IATA: Void

14.2. UN proper shipping name

ADR/RID, ADN, IMDG, IATA: Void

14.3. Transport hazard class(es)

ADR/RID, ADN, IMDG, IATA:
Class Void

14.4. Packaging group

ADR/RID, IMDG, IATA: Void

14.5. Environmental hazards:

Marine pollutant: No

14.6. Special precautions for user:

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

Transport/Additional information:

Not dangerous according to the above specifications.

UN "Model Regulation":

Void

15. Regulatory information

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I: Substance is not listed

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment –

Annex II: None of the ingredients is listed. ·

REGULATION (EU) 2019/1148 ·

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3)): None of the ingredients is listed. ·

Annex II - REPORTABLE EXPLOSIVES PRECURSORS: None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors: None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors: None of the ingredients is listed.

National regulations:

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57: None of the ingredients is listed. ·

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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 and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Genaxxon bioscience GmbH, shall not be held liable for any damage resulting from handling or from contact with the above product.

Disclaimer

This product is for R&D use only. Not for drug, household or other uses.

Abbreviations and Acronyms:

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ACAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

CAS: Chemical Abstracts Service (division of the American Chemical Society)

EINECS: European Inventory of Existing Commercial Chemical Substances

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

GHS: Globally Harmonized System of Classification and labeling of Chemicals

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

IMDG: International Maritime code for Dangerous Goods

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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