

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006



# GENAXXON

b i o s c i e n c e

Product number : M3446

Product name : Zeocin(TM)

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

### Product details

**Trade Name:** Zeocin(TM)

**Product Name:** Zeocin(TM)

**Catalogue-No.:** M3446

### Manufacturer /Supplier:

Genaxxon bioscience GmbH, Söflinger Str. 100, 89077 Ulm/Germany.  
Tel.: +49 (0)731 3608 123

### Further information available from:

Genaxxon bioscience GmbH, Söflinger Str. 100, 89077 Ulm/Germany.  
Tel.: +49 (0)731 3608 123

### Information in case of emergency:

Genaxxon bioscience GmbH, Söflinger Str. 100, 89077 Ulm/Germany.  
Tel.: +49 (0)731 3608 123

**MSDS-No:** zeocin\_2/e

**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. Composition/information on ingredients

### Chemical characterisation (phleomycin D1 main product)

**Description:** greenish powder

Product Name	Classification	CAS #	EC no	Annex I / Index Number
Zeocin	Acute Tox, 4; H302 Xn, R22	11006-33-0	---	---

**Formula** C55H85N20O21S2Cu x HCl  
**Molecular Weight** 1525 AMU  
**Synonyms** Phleomycin, Bleomycin

## 3. Hazardous identification

### Hazard description:



Xn – Harmful. May cause organ failure or death even at low dose.

### Information concerning particular hazards for human and environment:

R22: Harmful if swallowed

GHS label elements



Warning

### H302 – Harmful if swallowed

#### Prevention:

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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## Response:

IF SWALLOWED: Call a poison centre or physician if you feel unwell.  
Rinse mouth. Give plenty of water to drink.

## Disposal:

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

## 4. First-aid measures

**After inhalation:** If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing becomes difficult, call a physician.

**After contact with skin:** In case of contact, immediately wash skin with soap and copious amounts of water.

**After contact with eyes:** Rinse immediately with plenty of water and seek medical advice. Assure adequate flushing by separating eyelids with fingers.

**After swallowing:** If swallowed, wash out mouth with plenty of water provided person is conscious. Call for doctor immediately.

## 5. Fire-fighting measures

**Suitable extinguishing agents:** Water Spray. Carbon Dioxide. Dry chemical powder, or appropriate foam.

**Special risks:** Specific Hazard(s): Not inflammable. Fumes heavier than air. Emits toxic fumes under fire conditions.

**Protective equipment (For fire-fighters):** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## 6. Accidental release measures

**Personal precaution procedures to be followed in case of leak or spill:**

Evacuate area.

**Person related safety precautions:**

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

**Measures for environmental protection:**

Do not allow product to reach sewage system or any water course.

**Measures for cleaning/collecting:**

Sweep up, place in bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

**Additional information:** None.

## 7. Handling and storage

### Handling

**Information for safe handling:** Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Handle container with care. Open bottle carefully. Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Do not rise dust while opening container

**Information about fire – and explosion protection:** No special measures required.

### Storage:

**Requirements to be met by storerooms and receptacles:** Keep bottles well closed.

**Information about storage in one common storage facility:** Keep bottles well closed.

**Further information about storage conditions:** Keep tightly closed. Store at -20°C.

**Special requirements:** No special measures required.

## 8. Exposure controls / personal protection

**Additional information about design of technical facilities:** No further data. See item 7.

**Engineering controls:** Safety shower and eye bath.

**Personal protective equipment:** Respirator, chemical safety goggles, heavy rubber gloves.

**General protective and hygienic measures:**

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

Keep away from food, drink and animal food.

Remove spoiled clothing immediately. Wash contaminated clothing before reuse.

Wash thoroughly after handling.

Avoid contact with eyes and skin.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Protection of hands:** Protective compatible chemical-resistant gloves.

**Materials of gloves:** The selection of suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

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

**Eye protection:** Tightly sealed goggles.

## 9. Physical and chemical properties

### General Information

**Form:** Powder  
**Colour:** greenish  
**Odour:** not characteristic

### Change in conditions

**Melting point/Melting range:** no data available  
**Boiling point/Boiling range:** no data available

**Flash point:** Not applicable

**Self-ignition:** Product is not self-igniting

**Danger of explosion:** Product does not present an explosion hazard

**Density at 20°C:** Not applicable

**Solubility in / Miscibility with Water:** no data available

**pH value at 20°C:** no data available

**Water Content:** not applicable

## 10. Stability and reactivity

### Thermal composition / conditions to be avoided:

No decomposition if used according to specifications. May discolour on exposure to light.

### Stability

**Stability:** Stable

**Materials to avoid:** Strong oxidizing agents.

**Dangerous decomposition products:** Carbon monoxide, Carbon dioxide, Nitrogen oxides.

**Hazardous Polymerisation:** Will not occur.

## 11. Toxicological information

RTECS NUMBER: SY0525000

### Acute Toxicity

LD50 – Oral – Rat: 807mg/kg

Remarks: Behavioural: Altered sleep time (including change in righting reflex). Behavioural: Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration: Dyspnoea.

LD50 – Intraperitoneal – Rat: 310mg/kg

**Skin corrosion/irritation:** No data available

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**Serious eye damage/eye irritation:** No data available

**Respiratory or skin sensitisation:** No data available

**Germ cell mutagenicity:** Laboratory experiments have shown mutagenic effects.

Genotoxicity in vitro – Human – Leukocyte: Other mutation test systems.

Genotoxicity in vitro – Human – Leukocyte: Cytogenetic analysis.

Genotoxicity in vitro – Mouse – Ovary: Cytogenetic analysis.

Genotoxicity in vitro – Mouse – Subcutaneous: Cytogenetic analysis.

**Carcinogenicity:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity:** No data available

Specific target organ toxicity – single exposure: No data available

Specific target organ toxicity – repeated exposure: No data available

Aspiration hazard: No data available

Potential health effects:

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.  
Ingestion: Harmful if swallowed.  
Skin: May be harmful if absorbed through skin. May cause skin irritation.  
Eyes: May cause eye irritation.

**Signs and Symptoms of Exposure:** To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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## 12. Ecological Information

**Toxicity:** No data available

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**PBT and vPvB assessment:** No data available

**Other adverse effects:** Not data available

**General notes:** Water hazard class 2 (German Regulation) (Self assessment): slightly hazardous to water.  
Do not allow undiluted product for large quantities of it to reach ground water, water course or sewage system.

## 13. Disposal considerations

**Product:**

**Recommendation:** 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. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

**Uncleaned packaging:**

**Recommendation:** Disposal must be made according to official regulations.

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

## 14. Transport information

**Land transport ADR/RID (cross border)**

**ADR/RID class:** Non-hazardous for road transport.

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## Maritime transport IMDG:

**IMDG Class:** Non-hazardous for sea transport.

**Marine pollutant:** No

## Air transport ICAO-TI and IATA-DGR:

**ICAO/IATA Class:** Non-hazardous for air transport.

## 15. Regulatory information

### Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU-Directives / Ordinance on Hazardous Materials.

### Code letter and hazard designation of product:



**Xn – Harmful.** May cause organ failure or death even at low dose.

### R-Phrases:

R22: Harmful if swallowed

### S-Phrases:

36/37/39- 45

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately of soap and water. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

GHS label elements



**Warning**

### H302 – Harmful if swallowed

**National Regulations:** Germany

**Waterhazard class:** Water hazard class 2 (Self-assessment): slightly hazardous to water.

## 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. See reverse side of invoice or packing slip for additional terms and conditions of sale.

### Disclaimer

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