

## Safety Data Sheet

Hygromycin B Solution (50mg/ml)

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

Date of compilation 04.10.2017

Revision Date 07.10.2024

Version 002/10.2024

Replaces version of 19.10.2023 (Version 001/10.2023)

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

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#### Product identifiers

Product name: Hygromycin B Solution (50 mg/ml)

Catalogue No.: HYG-H

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)

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### Section 2 Hazards identification

#### Classification of the substance or mixture

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

Acute toxicity, (Category 3) H301

Acute toxicity, (Category 3) H311

Acute toxicity, (Category 1) H330

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:

H301 Toxic if swallowed.  
 H311 Toxic in contact with skin.  
 H330 Fatal if inhaled.

#### Precautionary statements:

P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
 P264 Wash skin thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P280 Wear protective gloves/ protective clothing.  
 P302 + P352 + P312 IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell.  
 P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

#### 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.

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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)

**Mixtures**

Synonyms:

none

Identification	Chemical name/Classification	Concentration
CAS: 31282-04-9	<b>Hygromycin B</b>	≥ 0,1 %
EC: 250-545-5	Acute toxicity 3: H301	
Index: Non-applicable	Acute toxicity 3: H330	
REACH: Non-applicable	Acute toxicity 1: H311	



A registration number is not available for this substance as the substance, or its use, are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.

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**

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

**Following skin contact**

Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

**Following eye contact**

Rinse out with plenty of water and remove contact lenses.

**Following inhalation**

Move to fresh air. Immediately call a physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

**Following swallowing**

Clean mouth with water and drink afterwards plenty of water. Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer

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activated charcoal (30 g in a 10% slurry) and consult a doctor as quickly as possible.

### Self-protection of the first aider

#### Most important symptoms and effects, both acute and delayed

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

#### Indication of any immediate medical attention and special treatment needed

The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

## Section 5 Firefighting measures

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### Extinguishing media

**Suitable extinguishing media** Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

**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<sub>x</sub>)  
Combustible. Development of hazardous combustion gases or vapours possible in the event of fire.

### Advice for firefighters

Stay in danger area only with self-contained breathing apparatus.  
Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

### 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

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### Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts.  
Avoid substance contact. Ensure adequate ventilation.  
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

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restrictions (see sections 7 and 10). Take up dry. Dispose of properly.  
Clean up affected area. Avoid generation of dusts.

**Reference to other sections** For disposal see section 13

### 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: Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.  
Storage stability: Recommended storage temperature: 2 - 8 °C  
Storage class (TRGS 510):  
6.1A: Combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials.

##### Specific end use(s)

Apart from the uses mentioned in section 1 no other 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

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### 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 ABEK

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.

## Section 9 Physical and chemical properties

### Information on basic physical and chemical properties

Physical state	Powder
Colour	No data available
Odour (Treshold)	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

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### Section 10 Stability and Reactivity

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**Reactivity** No data available

#### Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

**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

### Section 11 Toxicological information

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#### Information on toxicological effects

##### *Mixture*

**Acute toxicity** Oral: No data available  
Acute toxicity estimate Inhalation - 4 h - 0,0148 mg/L - dust/mist (Calculation method)  
Acute toxicity estimate Dermal - 366,67 mg/kg (Calculation method)

**Skin corrosion/irritation** No data available

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

**Respiratory or skin sensitization** No data available

**Germ cell mutagenicity** No data available

**Carcinogenicity** No data available

**Reproductive toxicity** No data available



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### Specific target organ toxicity:

- single exposure	No data available
- repeated exposure	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.

Loss of hearing, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Conjunctivitis, Dermatitis. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Other dangerous properties can not be excluded. This substance should be handled with particular care.

Handle in accordance with good industrial hygiene and safety practice.

#### Components

### Hygromycin B

**Acute toxicity** LD50 Oral - Rat - 13 mg/kg, Remarks: (RTECS)  
 LC50 Inhalation - Rat - 4 h - 0,00222 mg/l - dust/mist, Remarks: (RTECS)  
 LD50 Dermal - Guinea pig - 55 mg/kg, Remarks: (External MSDS) (RTECS)

**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



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### 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.

#### 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*

#### Hygromycin B

Toxicity No data available

General comments on entries in Section 12 as a whole

### Section 13 Disposal considerations

#### Waste treatment methods

**Product** Discourage sewage disposal. Dispose of waste according to applicable legislation.

**Contaminated packaging** Dispose of as unused product. Dispose of waste according to applicable legislation.

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### Section 14 Transport Information

In accordance with ADR / RID / IMDG / IATA

ADR/RID	IMDG	IATA
<b>UN number</b>		
3172	3172	3172
<b>UN proper shipping name</b>		
TOXINS, EXTRACTED FROM LIVING SOURCES, LIQUID, N.O.S. (HYGROMYCIN B, STREPTOMYCES SP.)	TOXINS, EXTRACTED FROM LIVING SOURCES, LIQUID, N.O.S. (HYGROMYCIN B, STREPTOMYCES SP.)	TOXINS, EXTRACTED FROM LIVING SOURCES, LIQUID, N.O.S. (HYGROMYCIN B, STREPTOMYCES SP.)
<b>Transport hazard classes</b>		
6.1	6.1	6.1
<b>Packaging group</b>		
I	I	I
<b>Environmental hazards</b>		
no	Marine pollutant: no	no

Special precautions for user

Tunnel restriction code: (C/E)

Further information :

No data available

### 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.

**National legislation**

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

H1 ACUTE TOXIC

**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.

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### 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