

**Hygromycin B (Powder)**

**HYG**

**SECTION 1 Identification of the Substance/Mixture and of the Company/Undertaking**

**1.1. Product identifier**

Identification of the product : Raw Material  
 Product code : HYG0500, HYG1000, HYG5000  
 Trade name : Hygromycin B (Powder)  
 CAS number : 31282-04-9  
 Molecular weight: : 527.52 g/mol  
 Formula : C20H37N3O13



Signal Word: DANGER

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

Use : For research purposes only

**1.3. Details of the supplier of the safety data sheet**

Company identification : **Formedium Ltd.**  
 King's Lynn, England, PE31 6DJ  
 Tel: +44(0)1485 609069  
 Web: www.Formedium.com  
 E-mail: info@formedium.com

**1.4. Emergency telephone number**

Emergency phone nr : Tel: +44(0)1485 609069 (local time : 9.00 to 17.00)  
 National Poison Information Centre :Europe UK : +44 0845 4647 (this service is only available to health professionals)  
 See [www.toxbase.org](http://www.toxbase.org) for a local poison centre

**SECTION 2 Hazards Identification**

**2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) 1272/2008**

Acute toxicity, Oral (Category 2), H300  
 Acute toxicity, Inhalation (Category 1), H330  
 Acute toxicity, Dermal (Category 2), H310  
 Serious eye damage (Category 1), H318  
 Respiratory sensitisation (Category 1), H334



Signal Word: DANGER

For the full text of the H-statements mentioned in this section, see Section 16.

**2.2. Label elements**

**Labelling according to Regulation (EC) 1272/2008**

Hazard statement(s): H300 + H310 + H330: Fatal if swallowed, in contact with skin or if inhaled.  
 H318: Causes serious eye damage.  
 H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Precautionary statement(s):**

P260: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
 P264: Wash hands thoroughly after handling.  
 P280 Wear protective gloves/ eye protection/ face protection.  
 P284: Wear respiratory protection.  
 P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.  
 P302 + P350: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER / doctor if you feel unwell.  
 P305 + P351 + P338 + P310: IF ON SKIN: Gently wash with plenty of soap and water.

**2.3 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.

**SECTION 3 Composition/Information on Ingredients**

**3.2. Mixtures**

Hazardous ingredients according to Regulation (EC) No 1272/2008

**Hazardous Components**

Chemical name	Contents	CAS No	EC No	Classification
Hygromycin B	<=100 %	31282-04-9	250-545-5	Acute Tox. 2; Acute Tox 1; Acute Tox. 2; Eye Dam. 1; Resp. Sens. 1; H300 + H310 + H330, H318, H334

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**Hygromycin B (Powder)****HYG****SECTION 4 First Aid Measures****4.1. Description of first aid measures**

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with plenty of water. Take victim immediately to hospital. Consult a physician.

**In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**4.2. Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

**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** : Alcohol-resistant foam, Carbon Dioxide (CO<sub>2</sub>), water spray, dry chemical

**5.2. Special hazards arising from the substance or mixture**

Carbon oxides, nitrogen oxides (NO<sub>x</sub>).

**5.3. Advice for fire-fighters**

If necessary, wear self-contained breathing apparatus for firefighting.

**5.4. Further information**

No data available.

**SECTION 6 Accidental Release Measures****6.1. Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Refer to protective measures listed in sections 7 and 8.

**6.2. Environmental precautions**

Do not let product enter drains. Prevent further leakage or spillage if safe to do so.

**6.3. Methods and material for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**6.4. Reference to other sections**

For disposal, see section 13.

**SECTION 7 Handling and Storage****7.1. Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2. 7

**7.2. Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature 2 - 8 °C

**7.3. Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

**Hygromycin B (Powder)****HYG****SECTION 8 Exposure Controls / Personal Protection****8.1. Control parameters**

**Components with workplace control parameters:** Contains no substances with occupational exposure limit values.

**8.2. Exposure controls**

**Appropriate engineering controls:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

**Personal protective equipment**

**Eye / face protection:** Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min

**Body protection:** Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**SECTION 9 Physical and Chemical Properties****9.1. Information on basic physical and chemical properties**

- |   |                              |
|---|------------------------------|
| a) Appearance                                   | Form: powder. Colour: Yellow |
| b) Odour  | No data available            |
| c) Odour Threshold                              | No data available            |
| d) pH   | No data available            |
| e) Melting point/freezing point                 | No data available            |
| f) Initial boiling point and boiling range      | No data available            |
| g) Flash point                                  | No data available            |
| h) Evaporation rate                             | No data available            |
| i) Flammability (solid, gas)                    | No data available            |
| j) Upper/lower flammability or explosive limits | No data available            |
| k) Vapour pressure                              | No data available            |
| l) Vapour density                               | No data available            |
| m) Relative density                             | No data available            |
| n) Water solubility                             | No data available            |
| o) Partition coefficient: n-octanol/water       | No data available            |
| p) Auto-ignition temperature                    | No data available            |
| q) Decomposition temperature                    | No data available            |
| r) Viscosity                                    | No data available            |
| s) Explosive properties                         | No data available            |
| t) Oxidizing properties                         | No data available            |

**9.2. Other safety information**

No data available

**Hygromycin B (Powder)****HYG****SECTION 10 Stability and Reactivity****10.1. Reactivity**

No data available

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

No data available

**10.4. Conditions to avoid**

No data available

**10.5. Incompatible materials**

Strong oxidizing agents.

**10.6. Hazardous decomposition products**

Other decomposition products - No data available.

In the event of fire: see section 5

**SECTION 11 Toxicological Information****11.1. Information on toxicological effects****Acute toxicity**

LD50 Oral - Rat - 13 mg/kg

LC50 Inhalation - Rat - 4 h – 2.22 mg/m<sup>3</sup>

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Olfaction: Other changes. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Eye: Conjunctive irritation. Behavioral: Aggression.

LD50 Dermal – Guinea Pig - 55 mg/kg

LD50 Intraperitoneal - rat - 63 mg/kg

LD50 Intravenous - mouse - 6 mg/kg

LD50 Intraperitoneal - guinea pig - 13 mg/kg

**Skin corrosion/irritation**

No data available.

**Serious eye damage/eye irritation**

No data available.

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available.

**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**

Possible risk of congenital malformation in the foetus. Suspected human reproductive toxicant

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS: WK2130000

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting., Conjunctivitis., Dermatitis, Loss of hearing.

**Hygromycin B (Powder)****HYG****SECTION 11 Toxicological Information (Continued)****11.2. Additional Informaion****Endocrine disrupting properties**

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 12 Ecological Information****12.1. Toxicity**

No data available.

**12.2. Persistence and degradability**

No data available.

**12.3. Bioaccumulative potential**

No data available

**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**12.6. Other adverse effects**

No data available.

**12.7. Endocrine disrupting properties**

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 13 Disposal Considerations****13.1. Waste treatment methods**

**Product:** Offer surplus and non-recyclable solutions to a licensed disposal company.  
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator with an afterburner and scrubber.

**Contaminated packaging:** Dispose of as unused product.

**Hygromycin B (Powder)****HYG****SECTION 14 Transport Information****14.1. UN Number**

ADR/RID: UN3462

IMDG: UN3462

IATA:3462

**14.2. UN Proper shipping name**

ADR/RID: TOXINS EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (Hygromycin B)

IMDG: TOXINS EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (Hygromycin B)

IATA: TOXINS EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (Hygromycin B)

**14.3. Transport hazard class(es)**

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

**14.4. Packaging group**

ADR/RID: I

IMDG: I

IATA: I

**14.5. Environmental hazards**

ADR/RID: No

IMDG Marine pollutant: No

IATA: No

**14.6. Special precautions for user**

No data available.

**SECTION 15 Regulatory Information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety datasheet complies with the requirements of Regulation (EC) No. 2015/830

**15.2. Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out

**SECTION 16 Other Information****Full text of H-Statements referred to under sections 2 and 3.**

Acute Tox.	Acute toxicity
Eye Dam.	Serious eye damage
H300	Fatal if swallowed.
H300 + H310 + H330	Fatal if swallowed, in contact with skin or if inhaled
H310	Fatal in contact with skin.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Further 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. Formedium Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.

**Revision:**

Complete SDS revision.

End of document