

Revision Date 11-Aug-2014

Version 1

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1. Product identifier**

Product Code 30-240-CR
Product Name Hygromycin B, 50 mg/ml Solution
Pure substance/mixture Mixture

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

For Research Use Only. Not Intended for Diagnostic or Therapeutic Use.

1.3. Details of the supplier of the safety data sheet

Mediatech Inc., A Corning Subsidiary
9345 Discovery Blvd.
Manassas, VA 20109
USA
+1.703.471.5955

Corning B.V.
Fogostraat 12
1060 LJ Amsterdam, The Netherlands
+31-(0)20-6557928

For further information, please contact

E-mail address ScientificSupportEMEA@Corning.com

1.4. Emergency telephone number

Emergency Telephone Chemtrec: +1-800-424-9300 (USA), +1-703-527-3887 (International; Call collect), (REF: CCN 56 88)

Section 2: HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture**

Regulation (EC) No 1272/2008

Acute toxicity - Oral	Category 3 (H301)
Acute toxicity - Dermal	Category 3 (H311)
Acute toxicity - Inhalation (Dusts/Mists)	Category 2 (H330)
Serious eye damage/eye irritation	Category 1 (H318)
Respiratory sensitization	Category 1 (H334)

2.2. Label elements

Signal word
Danger

Hazard statements

H301 - Toxic if swallowed
 H311 - Toxic 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

Precautionary Statements

P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P264 - Wash hands thoroughly after handling
 P271 - Use only outdoors or in a well-ventilated area
 P280 - Wear protective gloves
 P284 - Wear respiratory protection
 P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P310 - Immediately call a POISON CENTER or doctor/physician
 P362 - Take off contaminated clothing and wash before reuse
 P405 - Store locked up
 P501 - Dispose of contents/ container to an approved waste disposal plant

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

T+ - Very toxic, Xn - Harmful, Xi - Irritant

**R-Phrases**

R41 - Risk of serious damage to eyes
 R42/43 - May cause sensitization by inhalation and skin contact
 R26/27/28 - Very toxic by inhalation, in contact with skin and if swallowed

S phrases

S23 - Do not breathe vapor
 S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
 S28 - After contact with skin, wash immediately with plenty of water
 S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection
 S45 - In case of accident or if you feel unwell, seek medical advice immediately

2.3. Other hazards

None known

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixtures**

Chemical Name	EC No	CAS No	Weight-%	Classification according to 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hygromycin B	250-545-5	31282-04-9	1-5	T+; R26/27/28-R41-R42/43	Acute Toxicity 2 (H300) Acute Toxicity 2 (H310) Acute Toxicity 1 (H330) Serious Eye Damage 1 (H318) Respiratory Sensitization 1 (H334)

The substance does not require registration according to REACH.

Full text of R-phrases: see section 16 .

Full text of H- and EUH-phrases: see section 16 .

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice	Remove contaminated clothing and shoes.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Call a physician or poison control center immediately.
Skin Contact	Wash off immediately with soap and plenty of water. Seek immediate medical attention/advice.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Ingestion	If swallowed, rinse mouth with water (only if the person is conscious). Never give anything by mouth to an unconscious person. Call a physician.

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

Symptoms	See Section 11: TOXICOLOGICAL INFORMATION.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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Section 5: FIRE FIGHTING MEASURES**5.1. Extinguishing media****Suitable extinguishing media**

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

Unsuitable extinguishing media

No information available.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous combustion products

Carbon oxides, Nitrogen oxides (NOx)

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Section 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions	Use personal protective equipment as required. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Avoid breathing dust/fume/gas/mist/vapors/spray.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Collect spillage. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
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Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Prevent product from entering drains.

6.4. Reference to other sections

See Section 13: DISPOSAL CONSIDERATIONS, Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray. Ensure adequate ventilation, especially in confined areas.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

This product is for research and development only.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly after handling.

Personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand Protection	Wear protective nitrile rubber gloves.
Skin and body protection	Suitable protective clothing.
Respiratory protection	In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.
Recommended Filter type:	Multi-purpose combination (US); ABEK (EN 14387).

Environmental exposure controls Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	liquid	Odor	No information available
Appearance	clear	Odor threshold	No information available
Color	colorless / light yellow		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
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pH	No information available
Melting point/freezing point	No information available
Boiling point / boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific Gravity	No information available
Water solubility	Soluble in water
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

9.2. Other information

No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

None under normal use conditions

Thermal decomposition can lead to release of irritating and toxic gases and vapors

Carbon oxides, Nitrogen oxides (NOx).

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects**Acute toxicity****Product Information**

No acute toxicity information is available for this product

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hygromycin B	= 13 mg/kg (Rat)	-	= 2220 µg/m ³ (Rat) 4 h

Skin corrosion/irritation	Irritating to skin
Serious eye damage/eye irritation	Risk of serious damage to eyes.
Sensitization	May cause sensitization by inhalation and skin contact.
Germ cell mutagenicity	No information available.
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.
Target Organs	Ears, kidneys.
Potential health effects	
Inhalation	May be harmful if inhaled.
Ingestion	May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Skin	Irritating to skin.
Eyes	Risk of serious damage to eyes.
Symptoms	Symptoms include burning sensation, coughing, wheezing, shortness of breath, headache, nausea, and vomiting. May cause skin irritation and/or dermatitis.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

There is no known ecological information for this product

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues / Unused Products

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14: TRANSPORT INFORMATION

IMDG

14.1 UN/ID No.	UN2810
14.2 Proper shipping name	Toxic liquid, organic, n.o.s.
14.3 Hazard Class	6.1

14.4 Packing Group	I
Description	UN2810, Toxic liquid, organic, n.o.s. (Hygromycin B), 6.1, I
14.5 Marine pollutant	Not Applicable
14.6 Special Provisions	None
EmS-No	F-A, S-A
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1 UN/ID No.	UN2810
14.2 Proper shipping name	Toxic liquid, organic, n.o.s.
14.3 Hazard Class	6.1
14.4 Packing Group	I
Description	UN2810, Toxic liquid, organic, n.o.s. (Hygromycin B), 6.1, I
14.5 Environmental hazard	Not Applicable
Classification code	T1
14.6 Special Provisions	None

ADR

14.1 UN/ID No.	UN2810
14.2 Proper shipping name	Toxic liquid, organic, n.o.s.
14.3 Hazard Class	6.1
14.4 Packing Group	I
Description	UN2810, Toxic liquid, organic, n.o.s. (Hygromycin B), 6.1, I, (C/E)
14.5 Environmental hazard	Not Applicable
14.6 Special Provisions	None
Classification code	T1
Tunnel restriction code	(C/E)

ICAO (air)

14.1 UN/ID No.	UN2810
14.2 Proper shipping name	Toxic liquid, organic, n.o.s.
14.3 Hazard Class	6.1
14.4 Packing Group	I
Description	UN2810, Toxic liquid, organic, n.o.s. (Hygromycin B), 6.1, I
14.5 Environmental hazard	Not Applicable
14.6 Special Provisions	None

IATA

14.1 UN/ID No.	UN2810
14.2 Proper shipping name	Toxic liquid, organic, n.o.s.
14.3 Hazard Class	6.1
14.4 Packing Group	I
Description	UN2810, Toxic liquid, organic, n.o.s. (Hygromycin B), 6.1, I
14.5 Environmental hazard	Not Applicable
14.6 Special Provisions	None
ERG Code	6L

Section 15: REGULATORY INFORMATION

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

Water hazard class (WGK) Water endangering class = 3 (self classification)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Hygromycin B	-	-	-	X	-	-	X	-	-	-

Legend

X = Listed, - = Not Listed

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AICS** - Australian Inventory of Chemical Substances**15.2. Chemical safety assessment**

No information available

Section 16: OTHER INFORMATION**Full text of R-phrases referred to under sections 2 and 3**

R26/27/28 - Very toxic by inhalation, in contact with skin and if swallowed

R41 - Risk of serious damage to eyes

R42/43 - May cause sensitization by inhalation and skin contact

Full text of H-Statements referred to under sections 2 and 3

H300 - Fatal if swallowed

H301 - Toxic if swallowed

H310 - Fatal in contact with skin

H311 - Toxic 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

Version 1**Revision Date** 11-Aug-2014**Revision Note** Not Applicable.

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

Disclaimer

To the best of our knowledge, the information contained herein is accurate. However, neither Corning Incorporated nor any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

End of Safety Data Sheet