

Product Code: 40-100200.v2

Product Name: Thyretain™ Growth Medium

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1. Information on the Substance/Preparation and Company

1.1	Catalog #	40-100200.v2
	Product name	Thyretain™ Growth Medium
1.2	Company	Diagnostic HYBRIDS, Inc. 1055 East State Street, Suite 100 Athens, OH 45701, USA (740) 589-3300 or (866) 344-3477
1.3	In emergencies	Call your local emergency center

2. Components and Hazardous Ingredients

<u>Hazardous Ingredients</u>	<u>Classification Substance</u>	<u>EINECS Nr.</u>
Bovine serum	(none listed)	none
L-Glutamine	Xi, R36/37/38, S26-36	200-292-1
Penicillin	Xi, Xn, R42/43, S:23, 36/37, 45	200-710-2
Streptomycin	Xn, R22	223-286-0
[Proprietary ingredients]	[Not applicable]	[Not applicable]

Classification key: Toxic (T); Very toxic (T+); Harmful (Xn); Irritant (Xi); Dangerous for the environment (N); Oxidizing agent (O); Explosive (E); Flammable (F)

3. Hazards Identification

- Bovine serum may cause eye and skin irritation. May be harmful if inhaled and may be irritating to mucous membranes and upper respiratory tract. May be harmful if swallowed.
- L-Glutamine may cause allergic skin and/or respiratory reaction. Irritating to eyes, respiratory system, and skin.
- Penicillin may cause allergic skin reaction, allergic respiratory reaction, slight irritation to the digestive tract, respiratory tract, eyes, and skin.
- Streptomycin is very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.
- Contains non-hazardous quantities of proprietary ingredients [OSHA Regulations (Standards-29CFR) Hazard Communication-1910.1200(i)(1)]

4. First Aid Measures

- Eye contact:*
- Flush eyes immediately with water for 15 minutes, occasionally lifting the upper and lower eyelids
 - Consult a doctor/medical service
- Skin contact:*
- Rinse with plenty of water
 - Remove clothing before washing
 - Consult a doctor/medical service
- After inhalation:*
- Remove the victim into fresh air
 - Consult a doctor/medical service
- After ingestion:*
- Consult a doctor/medical service

5. Fire Fighting Measures

- Suitable extinguishing media:*
- All non combustible extinguishing media allowed
- Unsuitable extinguishing media:*
- No data available
- Special exposure hazards:*
- No data available
- Instructions:*
- Take account of contaminated fire fighting water

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- Use fire fighting water moderately and contain it
- Special protective equipment for firefighters:
 - No data available

6. Accidental Release Measures

- Personal protection:*
 - See 8, below
- Environmental precautions:*
 - Discharge according to local regulations
- Clean-up:*
 - Take up liquid spill into absorbent material
 - Discharge of absorbed material according to local regulations
 - Wash clothing and equipment after handling

7. Handling and Storage

- Handling:*
 - *If solution is spilled:* take up with an absorbent material; if contact is possible, wear gloves as protection.
 - Discharge according to local regulations
 - Remove and clean contaminated clothing
 - Handle and open the container with care
- Storage:*
 - 2°C to 8°C

8. Exposure Controls/Personal Protection

8.1 Exposure Limits

Chemical/Component	TLV/NIOSH REL	OSHA PEL	CAS No.
Bovine Serum	Not listed	Not listed	Not available
L-Glutamine	Not listed	Not listed	56-85-9
Penicillin	Not listed	Not listed	69-57-8
Streptomycin	Not listed	Not listed	57-92-1

Note: Information in above table from NIOSH Pocket Guide to Chemical Hazards, 2005.

8.2 Control of Exposure

- Eye protection:*
 - Safety glasses or Face shield
- Hand protection:*
 - Gloves should be waterproof
 - Suitable materials: Butyl rubber, natural rubber, neoprene, nitrile rubber, polyethylene, PVC
 - Hands should be washed after working with this product.
- Skin protection:*
 - Protective clothing
- Respiratory protection:*
 - Area ventilation is generally adequate; avoid generation of dusts, mists or other airborne forms when working with the product
 - Insufficient ventilation: wear respiratory protection

9. Physical and Chemical Properties

Clear, aqueous liquid; orange to red in color; odorless

Note: Boiling and Freezing Points for all aqueous components are near those of pure water.

10. Stability and Reactivity

- *Stability:* Hazardous polymerization will not occur. All components are stable if stored in specified conditions (see label).
- *Reactivity/Hazardous decomposition products:* No hazardous decomposition products are formed in high quantities
- *Conditions/Materials to avoid:* Strong oxidizing agents.

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11. Toxicological Information

Acute toxicity:

<i>L-Glutamine</i>	LD ₅₀ oral, rat	7500 mg/kg
<i>Penicillin</i>	LD ₅₀ oral, rat	6,916 mg/kg
<i>Streptomycin</i>	LD ₅₀ oral, rat	430 mg/kg

Chronic toxicity:

<i>L-Glutamine</i>	Target Organ(s): None identified
<i>Penicillin</i>	Target Organ(s): nerves, kidney, ears
<i>Streptomycin</i>	Target Organ(s): skin, eyes, kidneys, ears

Routes of exposure

- Ingestion, inhalation, eyes and skin
- Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals. Causes photosensitivity. Exposure to light can result in allergic reactions resulting in dermatologic lesions, which can vary from sunburn-like response to edematous, vesiculated lesions or bullae.

Acute effects/symptoms

- Potential for ototoxicity (vestibular damage, hearing loss and tinnitus) and nephrotoxicity (kidney toxicity).
- May cause skin, eye, and mucous membranes and upper respiratory tract irritation.
- May be harmful if swallowed.

Chronic effects

- May be associated with significant nephrotoxicity and/or ototoxicity.
- The chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological Information

Aquatic toxicity:

<i>Streptomycin</i> :	LC ₅₀ (96 h):	>180 mg/L (<i>Oncorhynchus mykiss</i> ; rainbow trout)
	EC ₅₀ (48 h):	650 mg/L (<i>Daphnia magna</i> ; water flea)
		Toxic to daphnia and other aquatic invertebrates

Other Information:

- *Effect on the ozone layer*: Not dangerous for the ozone layer (1999/45/EC)
- *Greenhouse effect*: No data available
- *Effect on waste water purification*: No data available

13. Waste Disposal Considerations

Disposal methods:

- Disposal of material according to following local regulations.

14. Transport Information

USA: No restrictions.

Canada: No restrictions

EU: No restrictions



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15. Regulatory Information

Classification according to directives 67/548/EEC and 1999/45/EC

Symbol	
 Xn – harmful Xi – irritant	R22: Harmful if swallowed R36/37/38: Irritating to eyes, respiratory system and skin R20/21/22: Harmful by inhalation, in contact with skin and if swallowed R40: Possible risk of cancer R42/43: May cause sensitization by inhalation and skin contact R52: Harmful to aquatic organisms
 N	S23: Do not breathe aerosols S24/25: Avoid contact with skin and eyes S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice S36/37/39: Wear suitable protective clothing, gloves and eye/face protection S38: In case of insufficient ventilation wear suitable respiratory equipment S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)

16. Other Information

- Based on: US 29 CFR 1910:1200(g); Canadian Hazardous Product Act, Part II; Directive 911155/EEC et seq.
- This product is designed for use by professionals.
- The above information is believed to be accurate and represents the information available to date, but Diagnostic Hybrids does not purport it to be all-inclusive; this should be used only as a guide.
- Refer to the Product Insert for this Product for additional details on the proper storage, handling, use, and disposal of the reagents included in this Product.
- Contact Diagnostic Hybrids, Inc. if additional information is required.

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