

Effective date: 11/03/26	Hy-Labs Cat. No: TT414	MSDS FORMAT MATERIAL SAFETY DATA SHEET	
Doc. No: MSDS-TT414			

1- Product and Company Identification	
Product Name	BHI AGAR + CHLORAMPHENICOL + GENTAMYCIN (SLANTED)
Reference number	TT414
Identified uses	Used for the isolation and cultivation of fungi, especially yeasts and molds
Manufacturer	Hy-Laboratories Ltd. Park Tamar, Rehovot, 76326, Israel Tel: 972-8-9366475 Fax: 972-8-9366474
2- HAZARDS IDENTIFICATION	
<p>This product is generally not classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.</p> <p>Prepared slants contain low concentrations of hazardous antibiotics embedded in agar. However, the presence of antibiotics requires careful laboratory handling.</p> <p>Hazard Classification: Not classified as hazardous mixture. Irritant / Harmful not excluded, but overall risk is low when handled as a closed agar matrix.</p> <p>Signal Word: Warning</p> <p>Hazard Statements: None required for the prepared mixture.</p> <p>Primary hazards in practice: After inoculation: biological risk from cultured organisms.</p> <p>Potential Hazards Components of concern: Gentamicin – may cause allergic reactions; harmful if injected; organ toxicity after prolonged exposure (kidney, inner ear in therapeutic contexts). Chloramphenicol – suspected carcinogen and associated with aplastic anemia; hazardous mainly by systemic exposure (ingestion, injection, repeated skin exposure). Prepared media may support the growth of microorganisms after inoculation.</p> <p>Precautionary Statements Avoid skin and eye contact. Use standard microbiological laboratory practices. Wear laboratory protective equipment.</p> <p>Recommended hazard statements: May cause skin and eye irritation. Contains antibiotics that may cause allergic or hematologic effects with repeated or prolonged exposure. Harmful to aquatic organisms; avoid release to the environment (due to antibiotics).</p>	
3- COMPOSITION/INFORMATION ON INGREDIENTS	
Component	Concentration
Agar	18 g/L
Brain Heart Infusion Broth	37 g/L
Gentamicin	100 mg/L
Chloramphenicol	0.3 g/L

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Hazardous components in mixture:

Gentamicin – typically classified as Eye Irrit. 2, Skin Sens. 1, Aquatic Acute/Chronic; target organs kidney and inner ear at therapeutic doses.

Chloramphenicol – Suspected carcinogen, risk of bone-marrow suppression/aplastic anemia; harmful if swallowed; may cause allergic reactions.

At the stated concentrations, systemic exposure would require improper handling (ingestion, injection, or repeated unprotected contact with large amounts).

4- First Aid Measures

Inhalation (unused slants):

Not expected to be a primary route (solid matrix). If smoke/fumes from overheating/autoclaving are inhaled, move to fresh air; seek medical advice if respiratory symptoms occur.

Skin contact:

Remove contaminated clothing. Wash skin with plenty of soap and water. Seek medical advice if irritation, rash, or signs of allergy appear.

Eye contact:

Rinse cautiously with water for several minutes, holding eyelids apart. Remove contact lenses if easy. Seek medical attention if irritation persists.

Ingestion:

Rinse mouth with water; do not induce vomiting in an unconscious person. Due to presence of chloramphenicol and gentamicin, contact a physician or poison center for advice.

Most Important Symptoms

Possible allergic reactions in individuals sensitive to antibiotics.

For inoculated slants, also manage as potential exposure to infectious organisms per biosafety procedures.

5- Fire Fighting Measures

Suitable Extinguishing Media

Water spray, foam, dry powder, CO₂.

Hazards from combustion:

CO, CO₂ and irritating organic/nitrogenous fumes from burning agar, organics, and plastic/glass components; trace decomposition of antibiotics.

Protective equipment:

Standard firefighting gear and self-contained breathing apparatus.

6- Accidental Release Measures

Personal Precautions

Wear laboratory gloves and protective clothing.
Avoid contact with spilled material.

Environmental Precautions

Prevent release of inoculated material to the environment.

Cleanup Procedure

Collect spilled agar material using disposable absorbent material.
Disinfect contaminated surfaces with suitable disinfectant.
Dispose according to biological laboratory waste procedures.

Unused medium (spilled molten agar or broken tubes):

Wear gloves, lab coat, and eye protection.

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Absorb molten agar with inert material (paper towels, absorbent pads) and place in a suitable waste container.
Clean area with detergent and water. Avoid rinsing large quantities into drains because of antibiotic content.

Used / inoculated slants:

Treat as biohazard.
Collect broken glassware and agar into sharps-safe/biohazard containers.
Disinfect area with appropriate disinfectant (e.g., 0.1–1% sodium hypochlorite) and rinse afterward.

7- Handling and Storage

Handling

Follow standard microbiological laboratory practices.
Avoid ingestion and unnecessary skin contact with agar surface.
Avoid unnecessary exposure to antibiotics. For persons sensitized to aminoglycosides or chloramphenicol, avoid direct handling.
Handle inoculated tubes as potentially biohazardous.

Storage

Store slants at 2–8 °C, caps closed, protected from light and drying.
Protect from light and dehydration.
Keep away from incompatible chemicals (strong oxidizers/acids/bases).
Clearly label as containing gentamicin and chloramphenicol.

8- Exposure Controls, Personal Protection

Exposure Limits

No specific OELs for the prepared mixture; refer to national limits for individual antibiotics if applicable.
Chloramphenicol is controlled in many jurisdictions and should be minimized.

Personal Protective Equipment (PPE):

Lab coat, disposable gloves (change if contaminated), and safety glasses/goggles.

Engineering Controls

Standard laboratory ventilation
Biological safety cabinet when working with pathogenic organisms.
Additional protection (face shield, respirator) if working with aerosols or high-temperature procedures.

9- Physical and Chemical Properties

Property	Description
Appearance	Solid agar medium in slanted test tubes
Color	Light amber
Odor	Slight characteristic odor
pH	~7.4 ± 0.2
Melting Point	~85–95°C (agar gel melting range)
Solubility	Soluble in hot water during preparation
Flammability	Not flammable

10- Stability and Reactivity

Chemical Stability

Stable under recommended storage conditions.

Conditions to avoid:

Excess heat, Dehydration, freezing, prolonged light exposure (may degrade antibiotics), strong oxidizers, Contamination

Incompatible Materials

Strong oxidizing agents.

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Hazardous Decomposition Products

Carbon oxides and nitrogen oxides during combustion, and other organic fumes on combustion; partial decomposition of antibiotics.

11- Toxicological Information

For the prepared agar slants (unused):

Acute toxicity:

Low in normal lab handling; toxicities of chloramphenicol and gentamicin are primarily associated with systemic therapeutic exposure (oral, IV, IM).

Skin/eye irritation:

Possible mild irritation; chloramphenicol may cause allergic reactions with repeated contact.

Sensitization:

Gentamicin and chloramphenicol can act as sensitizers in some individuals.

Chronic effects:

Chloramphenicol: risk of bone-marrow suppression/aplastic anemia and possible carcinogenicity with prolonged significant exposure.

Gentamicin: nephrotoxicity and ototoxicity documented in therapeutic use; unlikely at trace lab contact but underscores need for PPE.

For inoculated tubes,

toxicological risk is dominated by the organisms cultured.

12- Ecological Information

Avoid environmental release of microorganism-containing cultures.

Ecotoxicity:

Antibiotics can be harmful to aquatic organisms and contribute to resistance selection; avoid uncontrolled discharge to the environment.

Persistence/degradability:

Agar and most medium components are biodegradable; antibiotics may persist somewhat but are not generally considered highly bioaccumulative.

Bioaccumulation:

Not expected to be significant at laboratory scales.

13- Disposal Information

Unused slants:

Preferably autoclave to inactivate antibiotics and then dispose as lab waste per local regulations. Do not pour large quantities of antibiotic-containing agar into drains.

Used slants:

Autoclave (e.g., 121 °C, ≥15 minutes) or use validated alternative decontamination. After decontamination, discard as infectious/clinical waste according to institutional and local regulations.

14- Transport Information

Unused slants:

Not regulated as dangerous goods under standard transport rules when shipped as culture media, unless local rules specify otherwise.

Used slants (with cultures):

If containing infectious agents, must be packaged and shipped under rules for infectious substances (e.g., UN

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3373, Category B), depending on organism and jurisdiction.

15- Regulatory Information

Not classified as hazardous according to:

Globally Harmonized System of Classification and Labelling of Chemicals
EU Regulation (EC) No 1272/2008

Chloramphenicol and gentamicin are regulated substances in many jurisdictions; laboratories should ensure use is authorized and minimized.

Prepared slants are for professional laboratory use and should be covered by internal chemical hygiene and biosafety programs.

16- Other Information

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

The information in this MSDS is based on current and reliable sources 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.

This information cannot be considered a guarantee of the properties of the product; it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products.

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.