

Effective date: 23/09/2026	Hy-Labs Cat. No: PD093	MSDS FORMAT	
Doc. No: MSDS- PD093		MATERIAL SAFETY DATA SHEET	Replace Doc: NA

1- Product and Company Identification		
Product Name	CNA COLUMBIA AGAR	
Reference number	PD093	
Identified uses	Selective isolation and cultivation of Gram-positive cocci and other microorganisms in microbiological laboratories.	
Manufacturer	Hy-Laboratories Ltd. Park Tamar, Rehovot, 76326, Israel Tel: 972-8-9366475 Fax: 972-8-9366474	
2- HAZARDS IDENTIFICATION		
2.1 Classification of the Mixture Based on the known composition and intended use, the unused, sterile prepared agar plate is not expected to meet the criteria for classification as a hazardous chemical mixture under GHS/CLP at the concentrations present in the finished medium. The medium contains antimicrobial agents, including colistin and nalidixic acid, as components of the Columbia CNA formulation. The concentrations in the finished prepared medium are low; however, normal laboratory precautions should be followed.		
2.2 Label Elements GHS Classification: Not classified as hazardous for normal laboratory handling of the unused, sterile product. Signal Word: None required. Hazard Pictograms: None required. Hazard Statements: None required for the unused sterile prepared product.		
2.3 Other Hazards - The product is intended for microbiological culture and may support growth of microorganisms. After inoculation, the plate may contain viable pathogenic or potentially pathogenic microorganisms. - Inoculated plates must therefore be handled as potentially infectious biological material and according to the laboratory's biosafety procedures. - Avoid contact with eyes, skin, and clothing. - Do not ingest. - Do not open or manipulate inoculated plates unnecessarily. The selective nature of the medium results from colistin and nalidixic acid, which inhibit many Gram-negative organisms.		
3- COMPOSITION/INFORMATION ON INGREDIENTS		
3.1 Mixture		
Component	Concentration in prepared medium	Function
Columbia CNA Agar	42.5 g/L	Nutrient and selective agar base
Sheep blood	70 mL/L (7% v/v)	Enrichment and detection of hemolysis
Purified water	q.s. to 1 L	Solvent
Relevant selective agents in the base medium Colistin: approximately 10 mg/L in the dehydrated-medium formulation Nalidixic acid: approximately 10 mg/L in the dehydrated-medium formulation These agents are incorporated into the Columbia CNA formulation to inhibit Gram-negative bacteria.		

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Note: The final concentration of individual components in the prepared plate should be regarded as approximate because the commercial dehydrated medium is a proprietary/controlled formulation and is adjusted to meet performance specifications.

4- First Aid Measures

4.1 Description of First-Aid Measures

Inhalation:

Not an expected route of exposure during normal handling of intact prepared plates. If discomfort occurs following exposure to aerosols, move the affected person to fresh air. Seek medical attention if symptoms persist.

Skin Contact:

Wash thoroughly with soap and water. Remove contaminated clothing. Seek medical attention if irritation develops or persists.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention if irritation persists.

Ingestion:

Rinse mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical advice if significant exposure has occurred.

Exposure to Inoculated Plates:

If exposure involves material from an inoculated plate, follow the laboratory's biological exposure/sharps/infectious-material procedure and seek medical evaluation according to institutional requirements.

4.2 Most Important Symptoms and Effects

No specific adverse effects are expected from normal handling of the unused sterile product.

Contact with the medium may cause minor mechanical or nonspecific irritation.

4.3 Indication of Immediate Medical Attention

Treat symptomatically. No specific antidote is known or required for normal exposure.

5- Fire Fighting Measures

5.1 Extinguishing Media

Use extinguishing media appropriate for the surrounding fire:

- Water spray
- Carbon dioxide
- Dry chemical
- Alcohol-resistant foam

5.2 Special Hazards

The product is predominantly an aqueous agar medium and is not expected to present a significant fire hazard.

During combustion of packaging or organic components, irritating or hazardous decomposition products may be generated.

5.3 Advice for Firefighters

Wear appropriate protective equipment and positive-pressure respiratory protection where required (SCBA).

Prevent contaminated firefighting water from entering drains or waterways where appropriate.

6- Accidental Release Measures

6.1 Personal Precautions: Use standard personal protective equipment (laboratory coat, gloves). Avoid physical damage to the plates.

For unused sterile plates:

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- Avoid direct contact with the medium.
- Wear appropriate laboratory PPE.
- Avoid creating aerosols.
- Follow laboratory procedures for handling biological culture media.

For inoculated plates:

- Treat the material as potentially infectious.
- Restrict access to the affected area.
- Follow the laboratory's biological spill procedure.

6.2 Environmental Precautions

Prevent large quantities of product from entering drains or natural waterways.

6.3 Methods for Containment and Cleaning

For unused plates:

1. Collect damaged plates and contaminated material using appropriate PPE.
2. Place waste in a suitable laboratory waste container.
3. Decontaminate the affected area using a validated disinfectant appropriate for the laboratory.
4. Dispose of waste according to applicable regulations.

For inoculated plates, use the laboratory's validated procedure for infectious biological waste and autoclave before disposal.

7- Handling and Storage

7.1 Precautions for Safe Handling

- For laboratory use only.
- Avoid unnecessary contact with the agar surface.
- Do not eat, drink, or smoke while handling the product.
- Wash hands after handling.
- Avoid generating aerosols.
- Maintain aseptic technique.
- Do not use plates showing contamination, excessive drying, cracking, leakage, or other deterioration.
- Handle inoculated plates as potentially infectious material.

7.2 Conditions for Safe Storage

Store prepared plates in their original sealed packaging at 2–8°C.

Recommended storage: 2–8°C

Protect from: Excessive heat, freezing, dehydration, and direct sunlight.

Keep plates in their original packaging until use.

7.3 Specific End Uses

Microbiological culture and selective isolation of microorganisms, particularly Gram-positive cocci.

8- Exposure Controls, Personal Protection

8.1 Control Parameters

No occupational exposure limits are established specifically for the finished prepared medium.

8.2 Exposure Controls

Engineering Controls:

Ensure general laboratory ventilation is adequate.

Normal microbiological laboratory facilities and appropriate biosafety practices.

Personal Protective Equipment (PPE):

Eye Protection:

Safety glasses or laboratory safety goggles where splash/contact is possible.

Hand Protection:

Disposable laboratory gloves, such as nitrile gloves.

Skin and Body Protection:

Laboratory coat or appropriate protective clothing.

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Respiratory Protection:

Not normally required for handling intact plates. Respiratory protection may be required if aerosols are generated, according to the laboratory risk assessment.

Hygiene Measures:

Wash hands thoroughly after handling and before leaving the laboratory.

9- Physical and Chemical Properties

<u>Property</u>	<u>Description</u>
Appearance	Red / Opaque red solid agar
Physical state	Solid gel
Odor	Characteristic, mild/no significant odor
pH	7.1 - 7.5
Melting point/freezing point	Agar liquefies at >85°C; freezes at ~0°C
Boiling point	Not applicable
Flash point	Not applicable
Flammability	Not expected to be flammable
Solubility	Agar gel matrix is insoluble in cold water; soluble in boiling water.
Relative density	Not determined
Vapor pressure	Not applicable
Partition coefficient	Not applicable
Viscosity	Not applicable to solid gel
Explosive properties	Not expected
Oxidizing properties	Not expected

10- Stability and Reactivity

10.1 Reactivity

No hazardous reactivity is expected under normal conditions of storage and use.

10.2 Chemical Stability

Stable under recommended storage conditions (2–8°C).

10.3 Possibility of Hazardous Reactions

No hazardous polymerization or hazardous reactions are expected under normal laboratory conditions.

10.4 Conditions to Avoid

- Excessive heat
- Freezing
- Prolonged exposure to light where applicable
- Excessive drying
- Improper storage conditions
- Contamination of sterile plates

10.5 Incompatible Materials

Strong oxidizing agents and strong acids/bases may be incompatible with individual components.

10.6 Hazardous Decomposition Products

Thermal decomposition may produce carbon oxides, nitrogen oxides and other irritating decomposition products.

11- Toxicological Information

11.1 Information on Toxicological Effects

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No significant toxicological effects are expected from normal handling of the unused sterile prepared product. Antibiotic components (Colistin and Nalidixic acid) are diluted well below hazardous thresholds.

Acute toxicity: No data available for the finished mixture.

Skin / Eye Irritation: May cause mild mechanical or physical irritation on prolonged or repeated contact.

Serious eye damage/eye irritation: Not expected to be severely irritating under normal conditions.

Respiratory or skin sensitization: No classification is proposed for the finished mixture based on available information.

Germ cell mutagenicity: No data available for the finished mixture.

Carcinogenicity: No classification is proposed for the finished mixture. No components present at levels greater than or equal to 0.1% are

Reproductive toxicity: No data available for the finished mixture.

STOT – single exposure: No data available indicating classification.

STOT – repeated exposure: No data available indicating classification.

Aspiration hazard: Not applicable to the solid agar product.

Biological Hazard
The principal potential hazard associated with a **used/inoculated plate** is biological rather than chemical. The identity and pathogenicity of organisms recovered from a specimen cannot be predicted from the medium itself.

12- Ecological Information

12.1 Toxicity

No specific ecological toxicity data are available for the finished mixture. Prepared culture media plates are not expected to be hazardous to the environment or aquatic life.

12.2 Persistence and Degradability

The organic components are fully biodegradable.

12.3 Bioaccumulative Potential

Bioaccumulation is not expected.

12.4 Mobility in Soil

No specific data available.

12.5 Results of PBT/vPvB Assessment

Not applicable/not assessed for the finished mixture.

12.6 Other Adverse Effects

No significant environmental effects are expected from small quantities handled appropriately in the laboratory.

13- Disposal Information

13.1 Waste Treatment Methods

Unused and used plates should be disposed of according to:

- Applicable local and national regulations
- Laboratory biological-waste procedures
- Institutional biosafety procedures

Inoculated plates:

Plates that have been used to culture microorganisms are considered **biohazardous waste**. Treat as potentially infectious biological waste. Autoclave (sterilized at 121°C) or otherwise decontaminate using a validated method before final disposal, where required by applicable procedures.

Packaging:

Dispose of uncontaminated packaging in accordance with local waste requirements.
Do not discharge significant quantities of microbiological culture media into drains.

14- Transport Information

DOT (US) / ADR/RID (Europe) / IMDG / IATA:

Not regulated as a dangerous good for transport. No special precautions required.

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14.1 UN Number

Not regulated as dangerous goods.

14.2 UN Proper Shipping Name

Not applicable.

14.3 Transport Hazard Class

Not applicable.

14.4 Packing Group

Not applicable.

14.5 Environmental Hazards

Not classified as an environmentally hazardous substance for transport.

14.6 Special Precautions

Transport prepared plates under appropriate validated temperature conditions and protect against freezing, excessive heat, and physical damage.

Note: Transport requirements may differ when plates contain viable microorganisms or clinical specimens.

15- Regulatory Information

15.1 Safety, Health and Environmental Regulations

This product is a prepared microbiological culture medium intended for laboratory use.

The classification presented in this SDS is based on the composition and intended use of the unused prepared medium and should be reviewed against the applicable legislation in the country of use, including applicable GHS/CLP requirements.

TSCA (USA) / REACH (Europe): Components of this mixture are either exempt from listing or are compliant with these inventory lists.

SARA 313 / 302: This material does not contain any chemical components subject to the reporting requirements of SARA Title III.

15.2 Chemical Safety Assessment

A chemical safety assessment has not been performed for the finished prepared mixture.

16- Other Information

Abbreviations

CNA: Colistin–Nalidixic Acid

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

PPE: Personal Protective Equipment

SDS: Safety Data Sheet

CLP: Classification, Labelling and Packaging

The information in this SDS is based on the formulation supplied and available information concerning the individual raw materials.

This SDS is intended to provide guidance for the safe handling, storage, use and disposal of the prepared product. It does not constitute a Certificate of Analysis or product specification.

For In-Vitro use only.

Disclaimer

The information contained in this Safety Data Sheet is believed to be accurate based on the current knowledge of the product and its components. It is intended solely as guidance for the safe handling, storage, use, transport, and disposal of the product and should not be considered a warranty or quality

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specification. Users are responsible for ensuring compliance with applicable local, national, and international regulations.