

Effective date: 27/09/2026	Hy-Labs Cat. No: PD170	MSDS FORMAT	
Doc. No: MSDS- PD170		MATERIAL SAFETY DATA SHEET	Replace Doc: NA

1- Product and Company Identification

Product Name	CDC + AMIKIN
Reference number	PD170
Identified uses	Prepared microbiological culture medium for the cultivation and antimicrobial susceptibility testing of anaerobic microorganisms. For in-vitro laboratory use only.
Manufacturer	Hy-Laboratories Ltd. Park Tamar, Rehovot, 76326, Israel Tel: 972-8-9366475 Fax: 972-8-9366474

2- HAZARDS IDENTIFICATION

GHS Classification (Regulation (EC) No 1272/2008 / GHS): The finished, prepared agar plate is not classified as a hazardous mixture under GHS/CLP - all supplement components (hemin, menadione/vitamin K3, amikacin sulfate) are present at trace (mg/L) concentrations, well below the standard GHS concentration cut-offs for classification. Avoid contact with eyes and skin.

Label elements: No signal word, hazard pictogram, or hazard statement required for the finished product.

Biological hazard: This product contains sheep blood, a biological material of animal origin. Although sourced from screened animals, it should be handled as potentially infectious using standard microbiological/biosafety (Universal Precautions) practices.

Other hazards: Amikacin sulfate, a raw material used in this medium, is classified as a sensitizer and serious eye-damage hazard (and, per some supplier data, a target-organ toxicant affecting kidney/hearing) in its concentrated powder form; the finished plate contains only trace residues. This medium is also designed to cultivate anaerobic bacteria, some of which may be clinically significant pathogens; once inoculated, plates must be handled under appropriate biosafety containment.

3- COMPOSITION/INFORMATION ON INGREDIENTS

This product is a solid (agar) enriched selective culture medium in plates, prepared from the following components:

1) Brucella Agar -

Description: Complex mixture (peptones, dextrose, sodium chloride, sodium bisulfite, agar)

Concentration: 43 g/L

Classification: Not classified as hazardous (GHS/CLP)

2) Hemin -

CAS No.: 16009-13-5

Description: Iron-porphyrin growth factor

Concentration: 5 mg/L

Classification: Generally regarded as low-hazard; not classified as hazardous by most supplier SDSs (some sources note minor potential for skin/eye irritation) - not significant at 5 mg/L in the finished agar.

3) Menadione (Vitamin K3), as Menadione Sodium Bisulfite

CAS No.: 130-37-0

Description: Synthetic vitamin K3 derivative, growth factor

Concentration: 10 mg/L

Classification (concentrate): Warning - typically labeled with acute oral toxicity and eye/skin irritation hazard warnings by suppliers (exact classification may vary slightly by supplier).

Note: Final concentration (0.001% w/v) is far below standard GHS generic concentration cut-offs for classification of the mixture.

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4) Amikacin Sulfate Salt

CAS No.: 39831-55-5

Description: Semisynthetic aminoglycoside antibiotic

Classification (concentrate): Danger - Skin Sens. 1 (H317 - May cause an allergic skin reaction), Eye Dam. 1 (H318 - Causes serious eye damage); some supplier SDSs additionally list H332 (Harmful if inhaled), H360/H361 (reproductive toxicity), and/or STOT RE 1 (H372 - kidney/ear) for amikacin sulfate

Concentration: 85 mg/L (approx. 0.0085% w/v)

Note: Final concentration is far below standard GHS generic concentration cut-offs (typically 1% for sensitizers, 3% for Eye Dam. 1) for classification of the mixture.

5) Sheep Blood (defibrinated)

Description: Biological material of animal origin

Concentration: 70 mL/L (7% v/v)

Classification: Not classified as a hazardous chemical; handle as a potential biohazard per standard laboratory practice (see Section 2 and Section 8).

6) Water (purified/deionized) - solvent/diluent, balance to volume

4- First Aid Measures

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists, particularly given the eye-damage classification of concentrated amikacin sulfate raw material.

Skin contact: Wash with plenty of water and soap. If irritation, rash, or an allergic reaction develops (possible with amikacin exposure), seek medical attention. If broken/non-intact skin contacts the product, treat as a potential biological exposure and follow your institution's exposure protocol.

Inhalation: Not an expected route of exposure for a solid agar medium. If dust from the dehydrated agar base or antibiotic powder is inhaled, or if allergy/asthma-like symptoms occur, remove to fresh air and seek medical advice.

Ingestion: Rinse mouth with water. Do not induce vomiting. Seek medical advice if discomfort occurs or if a significant amount is swallowed.

Note to physician: Treat symptomatically. This product is manufactured using amikacin sulfate, an aminoglycoside antibiotic associated with sensitization, eye damage, and (per some supplier data) kidney/ototoxicity in its concentrated form; consider this if a manufacturing-related exposure incident is reported. The finished product also contains sheep blood - consider standard precautions for biological exposure per institutional policy.

If the plate has been inoculated, inform medical personnel of possible biological exposure.

5- Fire Fighting Measures

The finished, prepared product is a solid agar medium and is not flammable or readily combustible under normal conditions.

Suitable extinguishing media: Use extinguishing media appropriate to the surrounding fire (water spray/fog, CO2, dry chemical, foam).

Unsuitable extinguishing media: None known.

Specific hazards: None known for the finished product. decomposition may generate irritating or toxic fumes, including carbon oxides, nitrogen oxides and other combustion products from organic components.

Special protective equipment for firefighters: Use self-contained breathing apparatus and full protective equipment for fires involving surrounding materials.

6- Accidental Release Measures

Personal precautions: Ensure adequate ventilation. Avoid contact with eyes, skin, and mucous membranes. Wear

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standard laboratory PPE (gloves, lab coat, eye protection) due to the biological (blood-containing) nature of this product.

Environmental precautions: Prevent spilled material from entering drains, waterways, or soil.

Methods for containment and cleanup: Wearing appropriate PPE, collect broken plates/spilled agar using a scoop or absorbent material; avoid generating aerosols. Disinfect the affected surface with a suitable disinfectant (e.g., 10% sodium hypochlorite solution or equivalent) as per standard biosafety practice, then rinse with water. Dispose of waste as described in Section 13.

For an **unused sterile plate**, collect spilled material using appropriate laboratory procedures and place it in a suitable container for disposal.

If the **plate is inoculated** or potentially contaminated with microorganisms, treat all material as potentially infectious and follow the laboratory's biological spill procedure.

Avoid contact with the product and prevent contamination of personnel and work surfaces.

7- Handling and Storage

Handling: Handle using standard microbiological/good laboratory practice, at Biosafety Level appropriate to the anaerobic organisms being cultured. Avoid contact with eyes, skin, and mucous membranes. Do not ingest. Wash hands after handling. Avoid generating aerosols.

Storage: Store prepared plates tightly sealed/bagged (ideally in an anaerobic environment/gas-generating pouch, per your protocol), inverted, protected from excessive heat, freezing, dehydration and direct sunlight as indicated on the product label/certificate of analysis. Typically stored refrigerated (2-8°C) until the labeled expiry date; Do not use if the medium shows signs of contamination, excessive drying, or hemolysis inconsistent with expected appearance.

Store sealed prepared plates under the validated conditions specified by the manufacturer.

Keep packaging closed when not in use.

Because the formulation contains **amikacin** sulfate, avoid unnecessary generation of aerosols and contact with the material. Follow applicable laboratory procedures for handling antimicrobial-containing media.

8- Exposure Controls, Personal Protection

Occupational exposure limits: No specific occupational exposure limits (OEL/TLV) have been established for this finished product. Normal laboratory ventilation is generally adequate for intact prepared plates. Use appropriate containment when handling inoculated cultures. Individuals with known hypersensitivity/allergy to aminoglycoside antibiotics (e.g., amikacin, gentamicin) should exercise particular caution when handling concentrated raw material.

Engineering controls: Handle in a well-ventilated area. Use of a biological safety cabinet and/or anaerobic chamber is recommended when working with inoculated plates or unknown/pathogenic anaerobic cultures, per your laboratory's risk assessment.

Personal protective equipment:

Eye protection: Safety glasses recommended for finished product handling; chemical splash goggles recommended when handling concentrated amikacin sulfate powder.

Skin protection: Laboratory coat and disposable gloves recommended; treat as a biological material due to the sheep blood content.

Respiratory protection: Not normally required for handling sealed/solid finished media;

9- Physical and Chemical Properties

Appearance: Prepared agar plate; solid microbiological culture medium, typically opaque to translucent, reddish/brownish-red color (from added sheep blood)

Physical state: Solid gel.

Odor: Faint characteristic odor

pH: Approx. 7.1 – 7.5

Melting/Softening point: Agar gel liquefies on heating to approx. 85-95°C; sets/gels below approx. 40°C

Flammability: Not flammable (solid, water-based gel)

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Solubility: Not applicable (solid gel matrix)

Flash point: Not applicable / not expected to be readily flammable.

Other properties: No unusual hazardous physical properties are expected for the finished prepared plate.

10- Stability and Reactivity

Chemical stability: Stable under normal conditions of storage (refrigerated, protected from light) until the labeled expiry date. Hemin, menadione (vitamin K3), and amikacin potency may gradually decline with prolonged storage or light exposure. Avoid excessive heat, freezing, dehydration and prolonged exposure to direct light.

Possibility of hazardous reactions: None known under normal use. No hazardous polymerization is expected

Conditions to avoid: Freezing, excessive heat, prolonged light exposure, and microbial contamination during storage.

Incompatible materials: Strong oxidizing agents, strong acids/bases (relevant to raw material handling; not applicable to the finished, prepared medium under normal use) and conditions that may compromise the agar or biological integrity of the medium.

Hazardous decomposition products: None expected under normal conditions of use and storage. In a fire, may produce carbon oxides, nitrogen oxides and other irritating combustion products.

11- Toxicological Information

Acute toxicity: The finished product is a low-hazard laboratory culture medium; Direct contact may cause irritation in sensitive individuals.

hemin, menadione, and amikacin are present at trace (mg/L) concentrations, well below levels of acute toxicological concern. Hemin and menadione sodium bisulfite (raw materials, concentrate): Generally low-hazard; may cause mild skin/eye irritation in concentrated form.

Skin/eye irritation, sensitization (finished product): Not expected to be significantly irritating or sensitizing at the concentrations present in the finished agar under normal use; individuals with known aminoglycoside antibiotic allergies should nonetheless exercise caution.

Biological hazard: As with any product containing animal blood, there is a theoretical, low risk of exposure to zoonotic biological agents. As this medium supports the growth of anaerobic bacteria, some of which are clinically significant pathogens, inoculated plates should be handled as a potential infection risk.

Inoculated plates may contain viable microorganisms capable of causing infection and must be treated as potentially infectious.

12- Ecological Information

Ecotoxicity: The finished product contains a trace concentration of amikacin (an antibiotic); avoid unnecessary release to the environment. Components are otherwise common culture-media constituents and trace biochemical growth factors. Avoid uncontrolled release of the product or antimicrobial-containing material into drains or the environment. Menadione sodium bisulfite is classified as very toxic to aquatic life with long-lasting effects (H410) for the concentrated substance; therefore, disposal should prevent environmental release.

Persistence and degradability: The organic/biological components (nutrient base, agar, blood) are expected to be biodegradable; data on the environmental fate of trace antibiotic residues in used media is limited.

Bioaccumulative potential: Not expected to bioaccumulate.

Other adverse effects: Dispose of used/inoculated media appropriately (see Section 13) to avoid release of antibiotic residues or cultured microorganisms into the environment.

13- Disposal Information

Dispose of unused, expired or contaminated plates as laboratory biological/chemical waste in accordance with applicable local and institutional requirements.

This product may contain or support the growth of microorganisms (including anaerobic pathogens) after use/inoculation and should be treated as biohazardous (biological) waste; it also contains a trace antibiotic residue (amikacin).

Autoclave (or otherwise appropriately disinfect) used/inoculated plates prior to disposal, in accordance with your institution's biosafety procedures and applicable local, national, and international regulations. Do not discharge

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antibiotic-containing waste directly to drains.

Unused/unopened product may be disposed of as general laboratory waste in accordance with local regulations, unless local rules require antibiotic-containing waste to be handled separately.

Dispose of contents/container in accordance with applicable local, national, and international regulations.

Inoculated plates must be treated as potentially infectious biological waste and decontaminated by an approved method before final disposal.

14- Transport Information

Not classified as a dangerous good for transport by road (ADR), rail (RID), sea (IMDG), or air (IATA/ICAO) when unused and unopened of finished prepared agar plate. Transport in closed, leak-resistant packaging under conditions that prevent breakage, freezing, excessive heat and contamination.

UN Number: Not applicable

UN Proper Shipping Name: Not applicable

Transport Hazard Class(es): Not applicable

Packing Group: Not applicable

Environmental hazards: No

Special precautions: If shipping used/inoculated plates containing cultured microorganisms, applicable biological/infectious substance transport regulations (e.g., UN3373 Biological Substance, Category B, where relevant) may apply - assess based on the specific organism(s) present.

15- Regulatory Information

The finished product is not classified as hazardous under Regulation (EC) No 1272/2008 (CLP) / GHS.

Raw material hazard classifications (concentrate): Amikacin sulfate - Skin Sens. 1 (H317), Eye Dam. 1 (H318) (some suppliers additionally list H332, H360/H361, and/or H372); hemin and menadione sodium bisulfite - generally low-hazard, minor irritation potential noted by some suppliers (classifications may vary by supplier).

Sheep blood is an animal-derived biological material; users should ensure compliance with applicable local regulations regarding handling of animal-derived materials and biological waste.

For In-Vitro Diagnostic (IVD)/laboratory use only - ensure compliance with applicable local IVD and biosafety regulatory requirements in addition to this chemical/biological safety data sheet.

Users are responsible for determining any additional applicable regulations for their jurisdiction and intended use.

16- Other Information

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