

Effective date: 13/04/26	Hy-Labs Cat. No: PD379	MSDS FORMAT	Replace Doc: NA
Doc. No: MSDS-PD379		MATERIAL SAFETY DATA SHEET	

1- Product and Company Identification

Product Name	MIDDLEBROOK 7H 11+OADC
Reference number	PD379
Identified uses	Selective and enriched medium for the cultivation and isolation of Mycobacterium spp., including Mycobacterium tuberculosis, in clinical and research laboratories.
Restrictions on Use	For laboratory or professional use only. BSL-3 precautions required for M. tuberculosis work.
Manufacturer	Hy-Laboratories Ltd. Park Tamar, Rehovot, 76326, Israel Tel: 972-8-9366475 Fax: 972-8-9366474

2- Hazard identification (unused plates)

<p>Globally Harmonized System of Classification and Labelling of Chemicals - GHS classification (mixture): Not classified as hazardous when handled as a solid agar matrix; individual components (agar, glycerol, salts, albumin, etc.) are at low risk levels in the final preparation.</p> <p>Hazard Classification: Not classified.</p> <p>Signal Word: None</p> <p>Hazard Statements: None required.</p> <p>Other Hazards: Medium is designed to support growth of pathogenic mycobacteria. After inoculation, plates may present biological hazard risks. Protein-rich enrichment (OADC) may cause mild irritation in sensitive individuals.</p> <p>Precautionary Statements: Handle using appropriate biosafety procedures. Use in a biological safety cabinet when working with clinical specimens. Avoid inhalation, ingestion, and contact with eyes or skin.</p>

3- Composition / information on ingredients (per liter)

<p>Middlebrook 7H11 Agar Base (19 g/L): Approximate; proprietary formulation</p> <p>Casein enzymic hydrolysate: ~1.0 g Ammonium sulfate: ~0.5 g Monopotassium phosphate: ~1.5 g Disodium phosphate: ~1.5 g Sodium citrate: ~0.4 g Magnesium sulfate: ~0.05 g L-glutamic acid: ~0.5 g Ferric ammonium citrate: ~0.04 g Pyridoxine: ~0.001 g Biotin: ~0.0005 g Malachite green: ~0.001 g (dye, irritant at higher concentrations) Agar: ~15 g</p>

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Supplements:

Glycerol: 5 mL (~5 g)

Middlebrook OADC Enrichment:

Bovine albumin fraction V: ~5.6 g

Dextrose: ~2.2 g

Catalase: ~0.004 g

Oleic acid: ~0.006 g

Sodium chloride: ~8.5 g

Final pH: 6.6 ± 0.2 at 25 °C.

This product does not contain hazardous substances at concentrations requiring classification under GHS.

4- First Aid Measures

Inhalation (unused plates):

Not expected to be hazardous (solid). If smoke or aerosols from autoclaving/overheating are inhaled, move to fresh air; seek medical attention if symptoms persist.

Skin contact:

Wash with soap and water. Malachite green or oleic acid may cause mild irritation; seek medical advice if rash or irritation develops.

Eye contact:

Rinse with water for several minutes, holding eyelids apart. Seek medical attention if irritation persists (possible from malachite green or salts).

Ingestion:

Rinse mouth with water. Not intended for ingestion; albumin and glycerol are low hazard but seek medical advice if significant amounts are swallowed.

For inoculated plates, treat as BSL-3 exposure (tuberculosis risk); follow institutional protocols.

5- Fire Fighting Measures

Suitable Extinguishing Media

Water spray

Carbon dioxide (CO₂)

Dry chemical powder

Foam

Specific Hazards

Not flammable

Thermal decomposition may produce: carbon oxides

Combustion produces CO, CO₂, nitrogen oxides, and irritating fumes from organics, albumin, and agar.

Protective Equipment

Standard firefighting protective equipment PPE and SCBA.

6- Accidental Release Measures

Unused plates:

Personal Precautions

Wear gloves and lab coat. Collect broken plates and agar fragments mechanically. Clean area with water and detergent.

Environmental Precautions

Prevent release of biologically contaminated material.

Cleanup Methods

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Collect spilled material using absorbent material.
Disinfect area with appropriate disinfectant.
Dispose as biological laboratory waste.

Used / inoculated plates:

BSL-3 biohazard procedures. Use appropriate PPE (respirator if aerosol risk), collect into biohazard/sharps containers, disinfect surfaces with suitable disinfectant (e.g., 1% sodium hypochlorite), and autoclave waste.

7- Handling and Storage

Handling

Follow good microbiological laboratory practices.
Avoid ingestion and unnecessary skin/eye contact.
Use appropriate containment when working with pathogenic organisms.
Avoid contamination of sterile plates.

Handling (used):

BSL-3 precautions for M. tuberculosis or other mycobacteria; work in a certified biosafety cabinet.

Storage

Store at 2–8°C
Protect from light and dehydration
Keep plates sealed until use
Use within shelf life stated on plates.

8- Exposure Controls, Personal Protection

Exposure Limits

No occupational exposure limits established for the mixture.
No specific OELs for the mixture; malachite green (trace) has low workplace limits in some jurisdictions (~0.1 mg/m³). Bovine albumin: universal precautions for animal products.

Personal Protective Equipment – PPE

Lab coat, gloves, safety glasses; respirator (e.g., N95 or PAPR) for aerosol risk with TB. Full BSL-3 PPE when manipulating cultures.

Engineering controls:

Biosafety cabinet (Class II or III) for mycobacterial work. Negative-pressure rooms for TB cultures.

9- Physical and Chemical Properties

Property	Description
Form	Solid agar medium in Petri dishes
Appearance:	Color: Light amber to pale yellow
Odor	Slight characteristic odor
pH	~6.6 ± 0.2
Melting Point	85 - 95° C
Solubility	Soluble in hot water (during preparation)
Flammability	Not flammable

10- Stability and Reactivity

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Stability

Stable under recommended storage conditions.

Conditions to Avoid

Excessive heat
Dehydration / freezing
Contamination

Incompatible Materials

Strong oxidizing agents. strong acids/bases.

Hazardous Decomposition Products

CO, CO₂, NO_x, organic fumes on combustion.

11- Toxicological Information

Unused plates:

Acute toxicity: Low; components are standard microbiological nutrients.

Irritation: Possible mild irritation from malachite green (trace) or salts.

Sensitization: Bovine albumin may cause allergic reactions in sensitized individuals.

Chronic: No specific chronic hazards at lab exposure levels.

Used plates:

High infectious risk from Mycobacterium tuberculosis (BSL-3 pathogen); inhalation of aerosols is primary concern.

12- Ecological Information

Low ecotoxicity from nutrients at lab volumes. Albumin is biodegradable.

Used plates: Do not release mycobacteria into the environment.

13- Disposal Information

Unused plates:

Autoclave or dispose as non-hazardous lab waste per local rules.

Used plates:

Autoclave at 121 °C ≥30 min (mycobacteria require validated sterilization); dispose as BSL-3 infectious waste.

Dispose in accordance with regulations for biological laboratory waste.

14- Transport Information

Unused:

Not regulated as hazardous material under:

IATA

IMDG

ADR

Transport as non-hazardous laboratory material.

Used: Infectious substances (UN 2814 or 2900, depending on risk group).

15- Regulatory Information

Not classified as hazardous according to:

Globally Harmonized System of Classification and Labelling of Chemicals

EU Regulation (EC) No 1272/2008

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16- Other Information

The above information is believed to be correct 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.