

Effective date: 28/09/2026	Hy-Labs Cat. No: PD104	MSDS FORMAT	hylabs®
Doc. No: MSDS- PD104		MATERIAL SAFETY DATA SHEET	Replace Doc: NA

1- Product and Company Identification

Product Name	XLD AGAR
Reference number	PD104
Identified uses	Selective and differential culture medium (agar plates) for the isolation of enteric Gram-negative bacilli (e.g., Salmonella, Shigella) from clinical, food, or environmental samples. For In-Vitro Diagnostic (IVD) use only. Not for human or animal consumption.
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 (a solid, water-based gel) is not classified as a hazardous mixture under GHS/CLP.

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

Biological hazard: This medium is designed to isolate enteric pathogens (e.g., Salmonella, Shigella). Once inoculated with a clinical, food, or environmental sample, plates must be treated as a biohazard and handled under appropriate biosafety containment (Biosafety Level 2 or per local requirements).

Other hazards: None known for the finished, uninoculated product.

Avoid ingestion, eye contact and unnecessary skin contact.

3- COMPOSITION/INFORMATION ON INGREDIENTS

This product is a solid (agar) selective/differential culture medium in plates, prepared from the following component:

1) XLD Agar (Xylose Lysine Desoxycholate Agar)

Description: Complex mixture. Typical formulation components include xylose, L-lysine, lactose, sucrose, yeast extract, sodium desoxycholate (bile salt), sodium thiosulfate, ferric ammonium citrate, sodium chloride, phenol red (pH indicator), and agar (exact formulation per supplier).

Concentration: 55 g/L

Classification (finished plate): Not classified as hazardous (GHS/CLP)

2) 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.

Skin contact: Wash with plenty of water and soap. If irritation or rash develops, seek medical attention.

Inhalation: Not an expected route of exposure for a solid agar medium. Move to fresh air if discomfort occurs.

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. If the plate has been inoculated with a clinical/food sample, also consider the risk of exposure to enteric pathogens (e.g., Salmonella, Shigella) present in the sample.

If an inoculated plate is involved, follow the laboratory's biological exposure procedure.

5- Fire Fighting Measures

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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. The dehydrated powder is a combustible organic dust; avoid generating dust clouds. Combustion may produce carbon oxides and other irritating decomposition products.

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 standard laboratory PPE (gloves, lab coat, eye protection).

For unused plates, wipe up or collect spilled material using appropriate laboratory procedures.. Clean the affected area with an appropriate disinfectant.

For inoculated plates or material potentially containing microorganisms, treat as potentially infectious and disinfect/autoclave according to validated laboratory procedures before disposal. Avoid aerosol generation.

Environmental precautions: Prevent spilled/broken plate 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/dust. Disinfect the affected surface with a suitable disinfectant, then rinse with water. Dispose of waste as described in Section 13.

7- Handling and Storage

Handling: Handle using standard microbiological/good laboratory practice, at Biosafety Level 2 or as required by local regulations when working with clinical/food samples suspected of containing enteric pathogens. Avoid contact with eyes, skin, and mucous membranes. Do not ingest. Wash hands after handling. Inoculated plates must be handled according to the applicable biosafety procedures.

Storage: Store prepared plates tightly sealed/bagged, inverted, protected from light, as indicated on the product label/certificate of analysis. Typically stored refrigerated (2-8°C) until the labeled expiry date; avoid freezing contamination and dehydration. Do not use if the medium shows signs of contamination, excessive drying, or discoloration inconsistent with expected appearance.

8- Exposure Controls, Personal Protection

Occupational exposure limits: No specific occupational exposure limits (OEL/TLV) have been established for this finished product.

Engineering controls: Handle in a well-ventilated area. Use of a biological safety cabinet is recommended when inoculating plates with clinical/food samples or handling suspected enteric pathogen cultures, per your laboratory's risk assessment. Use local exhaust ventilation or a dust-controlled area when handling the dehydrated powder.

Personal protective equipment:

Eye protection: Safety glasses recommended.

Skin protection: Laboratory coat and disposable gloves recommended.

Respiratory protection: Not normally required for handling the finished solid plates; a dust mask/respirator may be appropriate when handling the dehydrated powder without adequate ventilation.

9- Physical and Chemical Properties

Appearance: Solid agar medium in plates; clear to slightly opalescent, red/orange-red color (due to phenol red indicator)

Odor: Faint characteristic odor

pH: Approx. 7.4 ± 0.2

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Melting/Softening point: Agar gel liquefies on heating to approx. 85-95°C; sets/gels below approx. 40°C
Flammability: Not flammable (solid, aqueous gel)
Solubility: Not applicable (solid gel matrix)
Flash point: not applicable to the aqueous prepared medium.

10- Stability and Reactivity

Chemical stability: Stable under normal conditions of storage (refrigerated, protected from light) until the labeled expiry date.
Possibility of hazardous reactions: None known under normal use.
Conditions to avoid: Freezing, excessive heat, dehydration, prolonged light exposure, and microbial contamination during storage.
Incompatible materials: Strong oxidizing agents, strong acids/bases (relevant to raw powder handling; not applicable to the finished, prepared medium under normal use).
Hazardous decomposition products: No hazardous polymerization expected. None expected under normal conditions of use and storage.

Inoculation with microorganisms changes the biological risk of the material and does not represent a chemical instability.

11- Toxicological Information

Acute toxicity: The finished product is a low-hazard laboratory culture medium composed largely of nutrients, sugars, salts, and agar; the bile salt, iron salt, and indicator components are present at low concentrations well below levels of acute toxicological concern.
Skin/eye irritation, sensitization (finished product): Not expected to be significantly irritating or sensitizing at the concentrations present in the finished plate under normal end-user handling. Prolonged or repeated direct contact may cause minor mechanical/irritant effects in susceptible individuals.
Biological hazard: As this medium is intended to isolate enteric pathogens (e.g., Salmonella, Shigella), any inoculated plate should be regarded as a potential source of infection and handled accordingly.

12- Ecological Information

Ecotoxicity: Not expected to be significantly harmful to aquatic organisms at the concentrations present in the finished plate; components are common culture-media constituents. Avoid releasing unused powder or large quantities of medium to the environment. Avoid uncontrolled release of culture material.
Persistence and degradability: The organic components (sugars, amino acids, yeast extract, agar) are expected to be biodegradable.
Bioaccumulative potential: Not expected to bioaccumulate.
Other adverse effects: Dispose of used/inoculated media appropriately (see Section 13) to avoid release of cultured pathogenic microorganisms into the environment.
Inoculated plates may contain microorganisms capable of environmental persistence or dissemination and must be disinfected and disposed of according to applicable laboratory procedures.

13- Disposal Information

This product is intended to culture enteric pathogens; once inoculated, plates must be treated as biohazardous (biological) waste.
Autoclave (or otherwise appropriately disinfect/inactivate) used/inoculated plates prior to disposal, in accordance with your institution's biosafety procedures and applicable local, national, and international regulations.
Unused/unopened product may be disposed of as general laboratory waste in accordance with local regulations. Dispose of contents/container in accordance with applicable local, national, and international regulations.
Inoculated plates must be treated as potentially infectious waste and appropriately disinfected or autoclaved before final disposal, where required.

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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.

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: Protect plates from damage, leakage, excessive heat, freezing and contamination during transport. If shipping **inoculated plates** containing confirmed or suspected enteric pathogens (e.g., Salmonella, Shigella), applicable biological/infectious substance transport regulations (e.g., UN3373 Biological Substance, Category B, or UN2814 for Category A pathogens, as applicable) must be assessed and followed 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.

This MSDS describes the prepared XLD Agar plates and does not replace the supplier SDSs for the individual raw materials.

As this medium is intended for the isolation of enteric pathogens such as Salmonella and Shigella (notifiable/reportable in many jurisdictions), users should ensure compliance with applicable local biosafety, biosecurity, and public health notification requirements.

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