1- Product and Company Identification

Product Name	BLOOD AGAR (TSBA)
Reference number	DD001 DD003 DD004 DD032 DD037 DD064 PD049
Identified uses|	For growing and differentiating fastidious bacteria, especially for observing hemolysis patterns.
Manufacturer	**Hy-Laboratories Ltd.** Park Tamar, Rehovot, 76326, Israel Tel: 972-8-9366475 Fax: 972-8-9366474

2- HAZARDS IDENTIFICATION

2.1 GHS classification (ready plates):

Not classified as hazardous under the Globally Harmonized System (GHS) when supplied and handled as intended. components are common microbiological nutrients plus 5% defibrinated sheep blood.
Main hazards are biological after inoculation (pathogens grown on the plates), not chemical.

2.2 Potential minor hazards:

Animal blood: treat under universal precautions; consider low risk of allergy or sensitization.
Agar/nutrient matrix: may cause mild skin or eye irritation on prolonged contact in sensitive individuals.

No hazard pictogram or signal word is usually required for unused plates; follow institutional policy.

2.3 Label Elements:

Signal Word: None
Hazard Statements: None

2.4 Precautionary Statements:

Use appropriate personal protective equipment (PPE).
Avoid ingestion and contact with eyes or broken skin.
Handle in accordance with good laboratory and microbiological practices.

2.5 Other Hazards:

Contains 5% defibrinated sheep blood (animal-origin material). Although sourced from healthy animals and screened, it should be treated as potentially biohazardous.
After inoculation with microorganisms, plates must be handled and disposed of as biohazardous waste.

3- COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixture: Prepared agar-based culture medium with animal blood.

Tryptone H 15 g/L,
Soytone 5 g/L,
Sodium Chloride 5 g/L,
Agar 15 g/L
Donor Sheep Blood – 50 ml/L

3.2 Hazardous Ingredients:

None present at concentrations requiring disclosure under GHS in the finished product.

4- First Aid Measures

4.1 For unused plates:

Inhalation:

Not expected to be hazardous (no dust). If fumes from overheating or autoclaving are inhaled, move to fresh air; seek medical advice if symptoms persist.

Skin contact:

Wash with soap and water. Seek medical attention if irritation or allergic reaction occurs.

Eye contact:

Rinse cautiously with water for several minutes; remove contact lenses if present and easy. Get medical attention if irritation persists.

Ingestion:

Rinse mouth with water. Product is not intended for ingestion; if a significant amount is ingested or symptoms occur, obtain medical advice. Do not induce vomiting. Seek medical advice if discomfort occurs.

4.2 For used plates:

manage exposure as possible contact with infectious agents (e.g., Streptococcus, Staphylococcus, enteric bacteria) under appropriate biosafety procedures (usually BSL-2).

General Advice: Seek medical attention if symptoms persist or exposure is significant.

5- Fire Fighting Measures

5.1 Suitable Extinguishing media:

Water spray, foam, dry chemical, CO_2.

5.2 Specific Hazards:

Product is not flammable. Thermal decomposition may generate carbon oxides and nitrogen oxides. Combustion of agar, protein, and plastic dish may produce CO, CO_2, nitrogen oxides, and other irritating fumes.

5.3 Specific Hazards:

Protective equipment:

Standard firefighting PPE and self-contained breathing apparatus.

6- Accidental Release Measures

6.1 Personal Precautions:

Wear appropriate laboratory PPE (gloves, lab coat, eye protection).

6.2 Environmental Precautions:

Avoid release to drains or the environment.

6.3 Methods for Cleanup:

Collect spilled material using disposable tools.

Clean and disinfect the affected area with a suitable laboratory disinfectant.

Dispose of waste in accordance with laboratory and local regulations.

Unused plates:

Pick up intact plates and fragments mechanically.

Place into general lab waste or autoclave/waste stream as per local policy.

Clean contaminated surface with water and detergent.

Used / inoculated plates:

Wear gloves, lab coat, and eye protection as appropriate.

Collect broken plates and agar into a biohazard bag or sharps container.

Disinfect surfaces with suitable disinfectant (e.g., 0.1–1% sodium hypochlorite or 70% ethanol) according to institutional biosafety procedures.

7- Handling and Storage

7.1 Handling – unused:

Use good microbiological practice.
Avoid ingestion and unnecessary contact with skin and eyes.
Apply universal precautions when handling animal blood products.

7.2 Handling – used:

Treat as potentially infectious material.
Use BSL-2 procedures for clinical isolates and potentially pathogenic organisms (biosafety cabinet for aerosol-generating manipulations).

7.3 Storage:

Store plates at 2–8°C in original sleeves or sealed plastic bags.
Protect from dehydration, light, overheating, freezing and contamination.
Discard plates that show contamination, excessive drying, darkening/lysis of blood before use, or other defects.
Do not use beyond the expiration date.

8- Exposure Controls, Personal Protection

8.1 Exposure limits:

No specific occupational exposure limits for the mixture; components are standard microbiological nutrients and 5% blood.

8.2 Engineering controls:

Adequate general laboratory ventilation.
Certified biological safety cabinet when working with infectious material.

8.3 Personal Protective Equipment (PPE):

Lab coat, disposable gloves.
Safety glasses/goggles or face shield when splashes or aerosols may occur.

9- Physical and Chemical Properties

Physical state: Solid gel in plastic Petri dish.
Appearance: Opaque, bright red agar.
Odor: Mild.
pH: 7.2 - 7.6.
Melting point: Agar gel softens/melts above ~80–90 °C.
Solubility: Agar gel is not truly soluble; disperses in hot water.
Flash Point: Not applicable

10- Stability and Reactivity

Stability: Stable under recommended storage conditions for the stated shelf life.
Reactivity: No hazardous reactions under normal laboratory conditions.
Conditions to avoid: Excessive heat, freezing, dehydration, and contamination (for unused plates).
Hazardous decomposition: CO, CO_2, and nitrogen/organic fumes if burned.
Incompatible Materials: Strong oxidizing agents.

11- Toxicological Information

11.1 Unused plates:

Expected to have low acute toxicity.

Prolonged contact may cause mild irritation of skin or eyes in some individuals.
Animal blood and protein may rarely cause allergic reactions in sensitized persons.
Sensitization: Not expected under normal laboratory use.
Chronic Effects: No known chronic health effects associated with routine laboratory handling.

11.2 Used plates:

Toxicological concern is dominated by the microorganisms cultured on them; handle under appropriate biosafety standards.

12- Ecological Information

12.1 Ecotoxicity:

Not expected to pose environmental hazards in small quantities. The nutrient and blood components are biodegradable; small amounts are not expected to significantly impact the environment.

12.2 Persistence and Degradability:

Components are expected to be biodegradable.
Used plates may contain pathogens and should not be released into the environment without proper decontamination.

13- Disposal Information

13.1 Unused plates:

Dispose as non-hazardous laboratory waste if permitted by local regulation, or autoclave and discard.
Some facilities require autoclave/inactivation because of animal blood content.

13.2 Used plates:

After inoculation, treat plates as biohazardous waste.
Autoclave or otherwise disinfect according to institutional biosafety procedures.
After decontamination, discard as regulated medical/infectious waste in accordance with local regulations.

14- Transport Information

14.1 Unused plates:

Not regulated as dangerous goods under ADR/RID, IMDG, IATA.

14.2 Used plates:

If containing infectious agents, package and ship under applicable infectious substance regulations (e.g., UN 3373, Category B), where relevant.

UN Number: Not regulated
Proper Shipping Name: Not applicable
Hazard Class: Not applicable
Packing Group: Not applicable

15- Regulatory Information

Intended for laboratory and in vitro diagnostic use only.
Not classified as hazardous under GHS, CLP Regulation (EC) No 1272/2008, or OSHA Hazard Communication Standard when supplied.

16- Other Information

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.