

MUELLER HINTON AGAR

Safety Data Sheet · Dehydrated Powder · AST Reference Medium

Catalog No.
AS-1299

CAS No.
Not assigned

HS Code
3821.00.00

GHS Status
Not hazardous

GHS CLASSIFICATION Mueller Hinton Agar is not classified as hazardous under the GHS (UN GHS Rev. 9) or the Safe Work Australia Code of Practice for typical laboratory use quantities. Standard laboratory PPE and good laboratory practice apply.

Issue Date
01 January 2025

Version
v1.0 — Initial Issue

Review Date
01 January 2026

Document No.
SDS-AS1299-v1.0

SECTION 1 IDENTIFICATION

Product Name	Mueller Hinton Agar (MHA) — Dehydrated Powder
Catalog Number	AS-1299
HS / AHECC Code	3821.00.00 — Prepared culture media for development or maintenance of microorganisms
Product Type	Microbiological culture medium — AST (Antimicrobial Susceptibility Testing) reference medium
Recommended Use	Kirby–Bauer disk diffusion susceptibility testing; MIC determination; routine clinical microbiology
Restrictions	For laboratory and research use only. Not for human, veterinary, food, or pharmaceutical use.
Supplier	Ausamics Pty Ltd · 31 Longview Ct, Thomastown VIC 3074, Australia
Phone / Email	+61 412 520 598 · support@Ausamics.com · Ausamics.com.au
Emergency Contact	Poisons Information Centre: 13 11 26 (Australia, 24 hours)

SECTION 2 HAZARD IDENTIFICATION

NOT CLASSIFIED Mueller Hinton Agar is not classified as hazardous under UN GHS Revision 9 or the Safe Work Australia Hazardous Chemicals framework for typical laboratory use quantities and conditions.

GHS Classification	Not classified as hazardous
Signal Word	None required

Hazard Statements	None assigned
Precautionary Stmtms.	P260 — Do not breathe dust. P264 — Wash hands thoroughly after handling. P270 — Do not eat, drink, or smoke when using this product.
SUSMP (Aust.)	Not a scheduled poison
Physical Hazards	Fine powder — dust generation possible during weighing and handling. Not flammable under normal conditions.
Health Hazards	Dust may cause mild, transient irritation to eyes, skin, and upper respiratory tract upon prolonged or repeated contact.
Environmental	No significant environmental hazard expected at laboratory scale.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Nature: Complex microbiological culture medium — dehydrated blend of casein hydrolysate, beef extract, starch, and bacteriological agar.

Component	Approx. % w/w	CAS No.	GHS Classification
Acid hydrolysate of casein	~46%	65072-00-6	Not classified
Bacteriological agar	~45%	9002-18-0	Not classified
Beef extract / infusion solids	~5%	8001-31-8	Not classified
Soluble starch	~4%	9005-84-9	Not classified

* No components present above notification thresholds that are classified as hazardous under GHS.

SECTION 4 FIRST AID MEASURES

Route	Immediate Action	Follow-up / Notes
Eye Contact	Rinse immediately with copious running water for at least 15 minutes, holding eyelids apart.	Seek medical attention if irritation or redness persists.
Skin Contact	Remove contaminated clothing. Wash affected area with soap and water for at least 10 minutes.	Seek medical advice if irritation or rash develops.
Inhalation	Remove person to fresh air immediately. Allow to rest in a comfortable position.	Seek medical attention if coughing, wheezing, or respiratory symptoms persist.
Ingestion	Rinse mouth with water. Give 1–2 glasses of water to drink if conscious. Do NOT induce vomiting.	Seek medical advice. Show this SDS to attending medical personnel.

EMERGENCY Poisons Information Centre: 13 11 26 (Australia, 24-hour service). Show this SDS to medical personnel in all cases of significant exposure.

SECTION 5 FIRE - FIGHTING MEASURES

Flash Point	Not applicable — non-flammable solid
Suitable Extinguishants	Water spray · CO ₂ · Dry chemical powder · Foam
Hazardous Combustion Prods	Carbon oxides (CO _x) · Nitrogen oxides (NO _x)
Fire-Fighting PPE	Self-contained breathing apparatus (SCBA) and full protective clothing for significant fires
Special Notes	Fine powder may form a combustible dust-air mixture if dispersed. Avoid ignition sources near bulk quantities.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear PPE (gloves, goggles, dust mask P2). Avoid generating dust. Ensure adequate ventilation.
Environmental	Prevent entry into drains or waterways. Notify relevant authorities if significant quantities enter waterways.
Containment	Surround spill with inert absorbent material (sand, vermiculite, or dry earth).
Clean-up	Collect using a damp cloth or HEPA-filtered vacuum. Do NOT dry sweep. Place in a labelled, sealable waste container.
Decontamination	Wash contaminated surfaces with water and detergent. Dispose of wash water as per Section 13.

SECTION 7 HANDLING AND STORAGE

Handling

Ventilation	Use in well-ventilated area or fume hood when handling powder in quantity.
Dust Control	Minimise dust generation. Take care when opening containers and weighing.
Hygiene	Do not eat, drink, or smoke while handling. Wash hands before eating or leaving the work area.
Incompatibles	Keep away from strong oxidising agents and strong acids or bases.

Storage

Temperature	+15°C to +30°C (cool, dry location)
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Humidity	≤ 60% RH · Keep sealed · Hygroscopic — moisture causes caking and pH shift
Container	Original, tightly sealed container. Re-seal immediately after use.
Segregation	Keep away from food, feed, and oxidising agents.
Shelf Life	36 months from manufacture date when stored correctly. See label for expiry.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Workplace Exposure Std.	No specific OEL/WES established. Apply general good laboratory practice.
Engineering Controls	Well-ventilated laboratory. Local exhaust ventilation (LEV) preferred for bulk handling.

PPE Item	Specification	When Required
Eye / Face Protection	Safety goggles (AS/NZS 1337.1)	Any powder handling; splash risk from prepared solutions
Hand Protection	Nitrile or latex gloves (AS/NZS 2161.3 / EN 374)	All direct handling of powder or prepared medium
Respiratory Protection	Particulate respirator P2 (AS/NZS 1716)	Weighing, pouring, any activity generating significant dust
Body Protection	Laboratory coat. Closed-toe footwear.	Routine laboratory use
Hygiene	Wash station and eye wash accessible at all times in work area	Continuously during use

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid — dehydrated powder
Appearance	Light beige to cream coloured, homogeneous fine powder
Odour	Slight, characteristic casein / beef extract odour
pH (prepared medium)	7.3 ± 0.1 at 25°C
Solubility	Dispersible and soluble in purified water upon boiling (38 g/L)
Melting / Gel Point	Agar gels at approximately 32–40°C (gel-to-solution transition ~85°C)
Boiling Point	Not applicable (solid)
Flash Point	Not applicable (non-flammable solid)
Vapour Pressure	Negligible at ambient temperature
Relative Density	Not determined
Flammability	Not classified as flammable

Explosive Properties	Not classified as explosive. Fine dust may be combustible if airborne in high concentrations.
Oxidising Properties	Not classified as oxidising
Loss on Drying	≤ 5.0% w/w at 105°C / 2 hours

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions (15–30°C, dry, sealed, protected from light).
Conditions to Avoid	Heat above 50°C (dry powder) · High humidity · Open containers (moisture absorption alters pH and gel properties)
Materials to Avoid	Strong oxidising agents · Strong acids or bases (alter agar and medium composition)
Hazardous Reactions	No known hazardous polymerisation or self-ignition reactions.
Hazardous Decomp. Prods	Thermal decomposition above 200°C: carbon oxides, nitrogen oxides. Stable at ambient conditions.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	No LD50 data available. Components (casein hydrolysate, agar, starch) are of low acute oral toxicity.
Acute Dermal Toxicity	No data available. Skin absorption of solid powder is unlikely.
Acute Inhalation	Dust inhalation may cause mild irritation of the nasal passages and upper respiratory tract.
Skin Irritation	May cause mild irritation upon prolonged contact. Not classified as a skin sensitiser.
Eye Irritation	Dust may cause mild, transient eye irritation.
Sensitisation	No known sensitising effects based on component data.
Mutagenicity	Not classified as a mutagen based on available data.
Carcinogenicity	Not listed as a carcinogen by IARC, NTP, or OSHA. Not classified.
Reproductive Toxicity	Not classified. No evidence of reproductive toxicity.
STOT — Single Exp.	Not classified.
STOT — Repeated Exp.	Not classified. Avoid repeated, prolonged inhalation of dust.
Aspiration Hazard	Not applicable (solid).

SECTION 12 ECOLOGICAL INFORMATION

Aquatic Toxicity	No specific ecotoxicological data. Components (casein, agar, starch) are of biological origin and low inherent aquatic toxicity.
Persistence / Degradability	Components are biodegradable. Agar is slowly biodegradable.
Bioaccumulative Potential	Not expected to bioaccumulate based on component chemistry.
Mobility in Soil	Agar and casein components will biodegrade in soil. No significant mobility expected.
Other Adverse Effects	Avoid large-scale disposal to waterways. Large amounts of organic medium can deplete dissolved oxygen.

SECTION 13 DISPOSAL CONSIDERATIONS

DISPOSAL NOTE Dispose of this product in accordance with Commonwealth, State/Territory, and local regulations. Used culture medium (prepared plates) may be biologically contaminated and must be autoclaved before disposal.

Unused Powder	Dispose of via a registered chemical/laboratory waste contractor or incinerate at a licensed facility.
Prepared Agar (sterile)	May be disposed of as general laboratory waste once verified sterile and not biologically contaminated.
Used Culture Plates	Autoclave at 121°C / 15 min before disposal as regulated biohazardous waste per institutional policy.
Container Disposal	Rinse empty container three times with water. Dispose of in accordance with local regulations.
Regulatory Reference	Refer to State/Territory environmental protection authority for hazardous waste classification.

SECTION 14 TRANSPORT INFORMATION

Regulation	UN Number	Class / Division	Status
ADG (Road / Rail — Aust.)	Not regulated	—	Not dangerous goods
IATA (Air freight)	Not regulated	—	Not dangerous goods
IMDG (Sea freight)	Not regulated	—	Not dangerous goods

No special transport precautions required. Ensure containers are tightly sealed and securely packaged to prevent breakage in transit.

SECTION 15 REGULATORY INFORMATION

Australian AICIS	Assessed as exempt from industrial chemical registration for laboratory use quantities under the Industrial Chemicals Act 2019.
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Poison Scheduling	Not listed in the Poisons Standard (SUSMP). Not a scheduled substance.
Safe Work Australia	This SDS is prepared in accordance with Safe Work Australia Code of Practice: Preparation of Safety Data Sheets for Hazardous Chemicals (2020).
GHS Standard	UN GHS Revision 9. Not classified as hazardous.
WHS Regulations	Complies with model WHS Regulations — not classified as a hazardous chemical for routine laboratory use.
REACH (EU reference)	Not subject to REACH (Australian product).
Export Controls	No specific export restrictions identified. Verify importing country requirements before shipping.

SECTION 16 OTHER INFORMATION

Prepared By	Ausamics Pty Ltd — Quality Assurance Department
Document Number	SDS-AS1299-v1.0
Issue Date	01 January 2025
Review Date	01 January 2026 (or upon significant change to formulation or regulations)
Intended Use Note	For laboratory antimicrobial susceptibility testing only. Not intended for therapeutic, diagnostic, human, veterinary, or food applications.
Information Sources	GHS UN Rev. 9; Safe Work Australia COP; AICIS chemical assessment framework; CLSI M02/M07; EUCAST; ISO 20776-1; component safety data.
Abbreviations	ADG — Australian Dangerous Goods; AICIS — Australian Industrial Chemicals Introduction Scheme; AST — Antimicrobial Susceptibility Testing; CLSI — Clinical and Laboratory Standards Institute; EUCAST — European Committee on Antimicrobial Susceptibility Testing; GHS — Globally Harmonised System; LEV — Local Exhaust Ventilation; MIC — Minimum Inhibitory Concentration; OEL — Occupational Exposure Limit; PPE — Personal Protective Equipment; SCBA — Self-Contained Breathing Apparatus; SDS — Safety Data Sheet; STOT — Specific Target Organ Toxicity; SUSMP — Standard for the Uniform Scheduling of Medicines and Poisons; WES — Workplace Exposure Standard.

DISCLAIMER The information contained in this Safety Data Sheet is based on data considered accurate as at the issue date. Ausamics Pty Ltd has taken reasonable care in its preparation but does not guarantee its completeness or accuracy for all applications. The user is responsible for determining the suitability of this product for their specific application and for complying with all applicable laws and regulations. Ausamics Pty Ltd accepts no liability beyond the purchase price of the product supplied.