



SAFETY DATA SHEET

SDS-AS-1181 | Rev 01 |

Issue Date: 20-Sep-2024

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Columbia Broth Base

Prepared in accordance with Safe Work Australia's Globally Harmonized System (GHS 7th revision) as adopted under the WHS Regulations, and ISO 11014 / ANZ 16-section SDS format.

SECTION 1: IDENTIFICATION

Product Name	Columbia Broth Base
Catalogue Number	AS-1181
Product Type	Dehydrated microbiological culture medium
Recommended Use	Laboratory research and microbiological quality control use only. Not for human or veterinary consumption; not for diagnostic use without appropriate validation.
Manufacturer / Supplier	AuSaMicS Pty Ltd, 36/25 Trafalgar Road, Epping, VIC 3076, Australia
ABN	56 676 640 467
Telephone	+61 412 520 598
Email	support@ausamics.com
Emergency Telephone (Australia)	Poisons Information Centre — 13 11 26 (24 hours, Australia-wide)

SECTION 2: HAZARDS IDENTIFICATION

Classification: Not classified as a hazardous chemical/substance or dangerous good according to the Globally Harmonized System (GHS) as adopted under Australian WHS Regulations, based on the composition and available data for this product and its components (peptones, yeast extract, dextrose, sodium chloride, buffering salts and trace mineral salts).

Signal Word: None assigned. Hazard Statements: None assigned under GHS classification criteria.

Other Hazards: This product is a nutrient-rich growth medium. When rehydrated and inoculated, it is intended to support microbial growth, including potentially pathogenic organisms depending on the specimen or culture introduced by the user. The product itself, as supplied (dehydrated), does not support microbial growth and presents no infectious hazard. Dust generated during weighing/handling may cause mechanical irritation to eyes, skin, or the respiratory tract — treat as a nuisance dust and apply standard laboratory hygiene and PPE.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS



SAFETY DATA SHEET

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Component	CAS Number	Approx. Concentration
Pancreatic digest of casein (peptone)	91079-40-2	~28.6% w/w
Yeast extract	8013-01-2	~14.3% w/w
Proteose peptone No. 3	Mixture, not assigned	~14.3% w/w
Tryptic digest of beef heart	Mixture, not assigned	~8.6% w/w
Dextrose (D-glucose)	50-99-7	~7.1% w/w
Sodium chloride	7647-14-5	~14.3% w/w
Tris(hydroxymethyl)aminomethane / HCl salt	77-86-1 / 1185-53-1	~10.5% w/w
Sodium carbonate	497-19-8	~1.7% w/w
L-Cysteine hydrochloride	52-89-1	~0.3% w/w
Magnesium sulfate (anhydrous)	7487-88-9	~0.3% w/w
Ferrous sulfate	7720-78-7	~0.06% w/w

Mixture of food/laboratory-grade peptones, extracts, and mineral salts. No component is present above a concentration that triggers hazard classification of the mixture.

SECTION 4: FIRST AID MEASURES

Inhalation	Remove to fresh air if dust is inhaled and irritation occurs. Seek medical attention if symptoms persist.
Skin Contact	Wash with soap and water. Seek medical attention if irritation develops.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.
Ingestion	Not expected to be hazardous in small amounts. Rinse mouth with water. If a large amount is swallowed or discomfort occurs, seek medical advice.
Note	If the prepared (rehydrated/inoculated) medium has been used to culture microorganisms, treat as a potential biohazard and follow the laboratory's biosafety and exposure-response procedures in addition to first aid.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Water spray, carbon dioxide (CO ₂), dry chemical powder, foam — use media appropriate to the surrounding fire
Specific Hazards	Combustible organic powder; finely divided material may present a dust explosion risk in sufficient concentration near an ignition source



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Special Protective Equipment

Self-contained breathing apparatus (SCBA) recommended for fire-fighters in a significant fire

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid generating or inhaling dust. Wear appropriate PPE (Section 8)
Environmental Precautions	No special environmental precautions required for the dehydrated product; avoid unnecessary discharge of the rehydrated/inoculated medium to the environment as good laboratory practice
Containment & Clean-Up	Sweep or vacuum spilled powder into a suitable container for disposal; avoid dry sweeping that generates airborne dust. Wash the area with water after solid material is removed

SECTION 7: HANDLING AND STORAGE

Handling	Minimise dust generation during weighing and transfer; use in a well-ventilated area. Avoid contact with eyes. Wash hands after handling
Storage — Dehydrated Medium	Store at 15–30 °C in a tightly closed container, protected from moisture and light
Storage — Prepared Broth	Store at 2–8 °C in sealed containers; use within 2–4 weeks
Incompatible Materials	Strong oxidising agents; keep away from open flame/ignition sources in dust form

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits	No specific Safe Work Australia Workplace Exposure Standard (WES) established; apply the default WES for inhalable/respirable dust not otherwise classified where relevant
Engineering Controls	General ventilation is normally adequate; use local exhaust ventilation where significant dust is generated
Eye/Face Protection	Safety glasses recommended when weighing or handling powder
Skin Protection	Laboratory gloves and a laboratory coat
Respiratory Protection	Not normally required; use a P1/P2 particulate respirator if dust generation is significant

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Appearance (dehydrated)	Beige to light tan, free-flowing powder
Appearance (prepared)	Clear to light amber liquid, free of precipitate
Odour	Faint, characteristic (peptone-like)
pH (prepared medium, 25 °C)	7.5 ± 0.2
Solubility in Water	Fully soluble on heating to boiling
Flammability	Combustible organic powder; not classified as a flammable solid under normal handling

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions
Conditions to Avoid	Excess heat, moisture ingress, prolonged light exposure
Incompatible Materials	Strong oxidising agents
Hazardous Decomposition Products	Oxides of carbon and nitrogen under combustion/thermal decomposition

SECTION 11: TOXICOLOGICAL INFORMATION

No specific toxicological data are available for the mixture. Component peptones, extracts, sugars and mineral salts are of low acute toxicity and are widely used in laboratory and food-grade applications. Not classified for acute toxicity, skin/eye irritation, sensitisation, mutagenicity, carcinogenicity, reproductive toxicity, or specific target organ toxicity under GHS criteria based on available data. Once rehydrated and inoculated, the prepared medium may support growth of the organism(s) introduced by the user — assess and manage biological risk separately from the chemical hazard profile of this SDS.

SECTION 12: ECOLOGICAL INFORMATION

No specific ecotoxicological data available. The mixture is composed of readily biodegradable organic nutrients (peptones, extracts, sugars) and common mineral salts; not expected to present a significant environmental hazard in the dehydrated form. Avoid large-volume discharge of inoculated/contaminated medium to the environment; decontaminate (e.g. by autoclaving) before disposal.

SECTION 13: DISPOSAL CONSIDERATIONS

Dehydrated medium: dispose of as general laboratory chemical waste in accordance with local, state and federal regulations. Prepared/inoculated medium: autoclave or otherwise decontaminate before disposal, and dispose of as biological/clinical waste through a licensed waste contractor where the medium has been used to culture microorganisms.

SECTION 14: TRANSPORT INFORMATION

UN Number	Not regulated as dangerous goods for transport (ADG Code, IATA, IMDG)
Proper Shipping Name / Hazard Class / Packing Group	Not applicable
Special Precautions	Keep dry during transport; cold-chain not required for the dehydrated product

SECTION 15: REGULATORY INFORMATION

Australian WHS Classification	Not classified as a hazardous chemical under the WHS Regulations (GHS 7) based on available data
AICS	Components are consistent with substances listed on the Australian Inventory of Industrial Chemicals (AIIC) or otherwise exempt (biological extracts/peptones)
Other Regulations	Supplied under AuSaMicS Pty Ltd's standard Terms of Sale for laboratory research and quality-control use only

SECTION 16: OTHER INFORMATION

Revision	01
Issue Date	20 September 2024
Prepared By	AuSaMicS Pty Ltd — Technical/QA Department
Key to Abbreviations	GHS = Globally Harmonized System; WHS = Work Health and Safety; WES = Workplace Exposure Standard; AIIC = Australian Inventory of Industrial Chemicals
Key Literature Sources	Safe Work Australia Hazardous Chemical Information System; published SDSs for peptone-based dehydrated culture media (BD Difco, HiMedia) used for hazard-classification cross-reference



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This SDS applies to the dehydrated product as supplied. Once rehydrated and inoculated for laboratory use, the prepared medium should be handled under the user's own biosafety procedures appropriate to the organisms cultured.