SAFETY DATA SHEET

AS-1340

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Rose Bengal Chloramphenicol Agar (RBC)

Prepared in accordance with Safe Work Australia GHS-based SDS requirements

Document Control	Version 1.0 · Reviewed 04 September 2025
Technical Review	Hassan Salimi, Technical Director, AuSaMicS Pty Ltd

SECTION 1: Identification

Product Name	**Rose Bengal Chloramphenicol Agar (RBC)**
Catalogue Number	AS-1340
Recommended Use	Dehydrated microbiological culture medium — laboratory use only
Manufacturer	AuSaMicS Pty Ltd, Melbourne, Victoria, Australia
ABN	56 676 640 467
Emergency Contact	support@ausamics.com / see www.ausamics.com.au for current contact details

SECTION 2: Hazard(s) Identification

This product contains chloramphenicol (≈0.32% w/w), an antibiotic classified in its pure form as Carcinogenicity Category 2 (H351 — suspected of causing cancer) and Reproductive Toxicity Category 2 (H361 — suspected of damaging fertility or the unborn child), with IARC classifying chloramphenicol as Group 2A (probably carcinogenic to humans) based on its association with aplastic anaemia and subsequent leukaemia risk.

At the concentration present in this dehydrated medium (≈0.32% w/w), the mixture falls below the generic GHS concentration threshold (1.0%) for mandatory carcinogenicity/reproductive toxicity classification of the finished product. The dehydrated medium as supplied is therefore not classified as hazardous under Safe Work Australia GHS criteria on this basis. However, given the potency and toxicological profile of chloramphenicol, AuSaMicS recommends handling this product with the same precautions as a GHS-classified CMR (carcinogenic/reprotoxic) substance as a matter of good laboratory practice — see Sections 7 and 8.

Signal Word	**Warning (recommended, precautionary — see note above)**
Hazard Statements	None formally allocated to the mixture; chloramphenicol component carries H351 and H361 in pure form
Pictograms	Not formally required for the mixture at this concentration; handle with CMR-level precaution regardless
Physical Hazards	Not classified
Environmental Hazards	Not classified

SECTION 3: Composition / Information on Ingredients

Component	CAS No.	Concentration (w/w)
Agar	9002-18-0	≈ 47.4%
Dextrose	50-99-7	≈ 31.6%
Peptone	91079-40-2	≈ 15.8%
Potassium Dihydrogen Phosphate (KH2PO4)	7778-77-0	≈ 3.2%
Magnesium Sulfate Heptahydrate (MgSO4.7H2O)	10034-99-8	≈ 1.6%
Chloramphenicol	56-75-7	≈ 0.32%
Rose Bengal	632-69-9	≈ 0.16%

Chloramphenicol is disclosed above the standard 0.1% SDS disclosure threshold for components with hazardous properties, consistent with good SDS practice, even where the mixture itself does not carry a mandatory classification.

SECTION 4: First-Aid Measures

Route	First-Aid Response
Inhalation	Move to fresh air immediately. Seek medical attention, particularly following any significant or repeated dust exposure, given the chloramphenicol content.
Skin Contact	Wash affected area thoroughly with soap and water.
Eye Contact	Rinse thoroughly with water for at least 15 minutes, lifting eyelids. Seek medical advice.
Ingestion	Rinse mouth with water. Do not induce vomiting. Seek medical advice.

SECTION 5: Fire-Fighting Measures

Suitable Extinguishing Media	Water spray, foam, dry chemical, or carbon dioxide — product is not flammable
Specific Hazards	Combustion of organic dust may produce oxides of carbon and nitrogen
Protective Equipment	Self-contained breathing apparatus recommended for fire-fighters in enclosed spaces

SECTION 6: Accidental Release Measures

- Avoid generating dust; ventilate the area — this is particularly important given the chloramphenicol content.
- Wear appropriate personal protective equipment, including respiratory protection for larger spills (see Section 8).
- Sweep or vacuum spilled material using a HEPA-filtered vacuum where possible; avoid dry sweeping that generates dust.
- Place into a suitable, labelled container for disposal (see Section 13).
- Wash the spill area with water after collection.

SECTION 7: Handling and Storage

Handling	Avoid generating dust. Use with adequate ventilation, ideally a fume hood or dust-controlled weighing station given the chloramphenicol content. Avoid contact with eyes and skin. Wash hands thoroughly after handling. Pregnant or breastfeeding personnel should avoid direct handling of the dehydrated powder as a precaution, given chloramphenicol's reproductive toxicity classification in pure form.
Storage (Dehydrated)	Store at 10–30°C in a tightly closed container, protected from moisture and light.
Storage (Prepared Medium)	Store at 2–8°C, protected from light. Use within 3 months for optimal recovery.
Incompatible Materials	None known under normal use conditions.

SECTION 8: Exposure Controls / Personal Protection

Exposure Limits	No specific workplace exposure standard established for this product; treat as nuisance dust as a baseline (Safe Work Australia default: 10 mg/m³ inspirable dust, 8-hr TWA), with additional caution for the chloramphenicol component
Engineering Controls	Use in a well-ventilated area; local exhaust ventilation or fume hood recommended when weighing out the dehydrated powder
Eye Protection	Safety glasses required when handling dehydrated powder
Skin Protection	Laboratory gloves required
Respiratory Protection	Use a properly fitted dust mask (P2/N95 or better) when weighing or handling significant quantities of the dehydrated powder

SECTION 9: Physical and Chemical Properties

Property	Value
Appearance	Pink, free-flowing powder
Odour	Slight, characteristic
pH (prepared medium, 25°C)	7.2 ± 0.2 (neutral)
Solubility in Water	Disperses on heating; forms a light pink gel on cooling
Flammability	Not flammable

SECTION 10: Stability and Reactivity

Chemical Stability	Stable under recommended storage conditions
Conditions to Avoid	Excessive heat, moisture, direct sunlight, prolonged light exposure
Incompatible Materials	None known
Hazardous Decomposition Products	Oxides of carbon and nitrogen may form on combustion

SECTION 11: Toxicological Information

The chloramphenicol component is associated with a well-documented risk of aplastic anaemia and, subsequently, leukaemia in humans following exposure, and is classified by IARC as Group 2A (probably carcinogenic to humans). In its pure form, chloramphenicol carries GHS hazard statements H351 (suspected of causing cancer) and H361 (suspected of damaging fertility or the unborn child). At the concentration present in this product (≈0.32% w/w), acute toxicological risk from routine laboratory handling is low, but repeated or prolonged exposure to dust should be avoided as a precaution. Other components (peptone, dextrose, agar, phosphate and sulfate salts, Rose Bengal) present no significant known toxicity at laboratory use levels.

SECTION 12: Ecological Information

Chloramphenicol is reported to biodegrade under aerobic conditions via activated sludge treatment. The product should not be discharged to waterways in bulk or concentrated form. No other specific ecotoxicological data are available for this mixture.

SECTION 13: Disposal Considerations

- Dehydrated medium: dispose of as chemical waste (not general solid waste) given the chloramphenicol content, in accordance with local council/EPA requirements or via an approved laboratory waste contractor.
- Prepared/inoculated medium: sterilise by autoclaving (121°C, 15 min minimum) prior to disposal, in accordance with institutional biosafety procedures.
- Do not discharge dehydrated or prepared medium directly to sewer.

SECTION 14: Transport Information

UN Number	Not applicable — not classified as a Dangerous Good for transport
Proper Shipping Name	Not applicable
Transport Hazard Class	Not applicable
Packing Group	Not applicable
Special Precautions	None — transport as a general laboratory chemical/reagent

SECTION 15: Regulatory Information

The finished dehydrated medium is not classified as hazardous under Safe Work Australia WHS Regulations and GHS criteria at the chloramphenicol concentration present (≈0.32% w/w, below the generic 1.0% classification threshold for Category 2 CMR substances). Not listed as a Scheduled substance under the Poisons Standard (SUSMP) at this concentration. Not subject to the Australian Dangerous Goods (ADG) Code for transport. Users conducting their own risk assessment should note the presence of chloramphenicol, a substance with documented carcinogenic and reproductive toxicity hazards in its pure form.

SECTION 16: Other Information

Preparation Date	Refer to document issue date on cover
SDS Version	1.0
Prepared By	AuSaMicS Pty Ltd, Technical Department

This Safety Data Sheet has been prepared in accordance with Safe Work Australia's Code of Practice for Preparing Safety Data Sheets for Hazardous Chemicals. Information is provided in good faith and is believed accurate as at the date of issue; it does not constitute a warranty of any kind. Users must evaluate suitability for their own conditions of use and conduct their own risk assessment regarding the chloramphenicol content.

For laboratory use only. AuSaMicS Pty Ltd (ABN 56 676 640 467) accepts no liability arising from use of this product outside the conditions described in this document.