

SECTION 1 — Identification

Product Name	Agar Agar — Food Grade
Catalogue No.	BA-1019
CAS Number	9002-18-0 E406 INS 406
Intended Use	Food gelling agent, vegan gelatin replacement, pharmaceutical excipient, and technical formulation ingredient. For food, industrial, and laboratory use.
Supplier	AuSaMicS Pty Ltd ABN 56 676 640 467
Address	31 Longview CT, Thomastown VIC 3074, Australia
Phone / Email	+61 412 520 598 support@ausamics.com
Website	www.ausamics.com.au
Emergency	Poisons Information Centre: 13 11 26 (Australia, 24 hr)

SECTION 2 — Hazard Identification

GHS Classification: NOT classified as a hazardous substance under Australian WHS Regulations 2023 / GHS 7th Edition at intended use concentrations.

- Signal Word: None required
- Hazard Pictograms: None applicable
- Hazard Statements: None applicable
- Precautionary Statements: Avoid inhalation of dust during handling. Wash hands after use. Avoid contact with eyes (powder may cause mechanical irritation).
- Other hazards: Combustible dry powder — avoid ignition sources in bulk handling. Hot dissolved agar (>85°C) presents a burn hazard — handle with thermal protection.

SECTION 3 — Composition / Ingredients

Component	CAS	Content	GHS Classification
Agar polysaccharides (agarose + agaropectin)	9002-18-0	>= 99%	Not classified
Moisture	7732-18-5	<= 15%	Not hazardous
Mineral ash (trace)	—	<= 5%	Not classified

SECTION 4 — First Aid Measures

Route	First Aid Action
Inhalation	Remove to fresh air. If respiratory irritation persists, seek medical attention.
Skin Contact	Wash with soap and water. For hot agar burns: cool with running cold water for 20 min; seek medical attention if significant burn.
Eye Contact	Flush immediately with copious water for 15 min. Seek medical attention if irritation persists.

Route	First Aid Action
Ingestion	Agar is a natural food ingredient with low acute toxicity. Rinse mouth; drink water. Seek medical advice if large quantity ingested.

SECTION 5 — Fire-Fighting Measures

- Not flammable under normal conditions.
- Combustible dry powder in bulk — keep away from ignition sources.
- Suitable extinguishing media: CO₂, dry chemical, foam, water spray.
- Combustion products: CO₂, CO, water vapour.

SECTION 6 — Accidental Release Measures

- Avoid dust generation. Sweep or vacuum carefully; collect in sealed labelled container.
- Wet agar is very slippery — area around spills presents a slip hazard; clean immediately with hot water.
- No significant environmental risk from minor spills of agar (natural, biodegradable material).

SECTION 7 — Handling and Storage

Handling:

- Handle in well-ventilated area. Avoid dust inhalation.
- Use heat-resistant gloves when handling hot dissolved agar (>60°C).
- Wet/dissolved agar creates very slippery surfaces — manage spillage carefully.
- Wash hands thoroughly after handling.

Storage:

- Store at 15–25°C, dry, sealed, away from moisture and direct sunlight.
- Agar is hygroscopic — reseal container tightly after each use.
- Keep away from strong acids (pH < 4.0 degrades gel structure over time).
- Shelf life: 24 months under recommended conditions.

SECTION 8 — Exposure Controls / PPE

Protection Type	Recommendation
Respiratory	P1 dust mask when handling large quantities of dry powder or in dusty conditions
Hand protection	Heat-resistant gloves for hot dissolved agar; nitrile gloves for general handling
Eye protection	Safety spectacles when handling dry powder
Body protection	Standard food-industry/laboratory attire; closed-toe shoes
Engineering controls	Good general ventilation sufficient for normal use quantities
OEL	No specific WES established. Apply general inhalable dust limit (10 mg/m ³ ; respirable 3 mg/m ³).

SECTION 9 — Physical and Chemical Properties

Property	Value
Physical form	Fine powder
Colour	White to off-white
Odour	Odourless to faintly characteristic
Solubility	Insoluble in cold water; soluble in boiling water (>90°C)
Gelation temperature	32–40°C (1.5% solution)
Melting temperature	85–95°C (1.5% gel)
pH (1.5% solution)	5.0–7.5
Flammability	Not flammable (bulk powder combustible — see Section 5)
Explosive properties	Not explosive

SECTION 10 — Stability and Reactivity

- Chemically stable under recommended storage conditions.
- Conditions to avoid: Excessive heat (>150°C), prolonged contact with strong acids (pH < 4.0), moisture in storage.
- Incompatible materials: Strong acids degrade gel strength. Oxidising agents may cause discolouration.
- Hazardous decomposition: CO₂, CO, and water vapour on thermal decomposition at elevated temperatures.

SECTION 11 — Toxicological Information

- Acute toxicity (oral): Very low — agar is a recognised food ingredient (GRAS, E406). No significant acute oral toxicity.
- Skin/eye irritation: Not expected to be a significant irritant. Powder may cause mechanical eye irritation.
- Carcinogenicity / mutagenicity: No evidence — agar is classified as GRAS (FDA) and E406 (EU) with long history of safe food use.
- EFSA 2016 re-evaluation: Agar confirmed safe for food use — no ADI established due to absence of concern.

SECTION 12 — Ecological Information

- Biodegradable — natural polysaccharide; readily broken down by marine and soil microorganisms.
- Low ecotoxicity — no significant risk at typical use quantities.
- Avoid large-scale discharge of hot dissolved agar to waterways (thermal impact).

SECTION 13 — Disposal Considerations

- Dispose as non-hazardous organic waste per local EPA regulations.
- Prepared gels may be disposed via drain after liquefying with hot water (small quantities only).
- Large quantities: consult local authority waste disposal requirements.

SECTION 14 — Transport Information

System	Status
ADG (Australia)	Not classified as dangerous goods

System	Status
IATA (Air)	Not classified as dangerous goods
IMDG (Sea)	Not classified as dangerous goods
UN Number	Not applicable
Special precautions	Protect from moisture during transport; store upright

SECTION 15 — Regulatory Information

- Australian WHS Regulations 2023 / GHS 7th Edition — not classified as hazardous.
- FSANZ Food Standards Code: Agar (E406/INS 406) — permitted food additive, Schedule 15.
- EU: E406 — approved under Regulation 1333/2008.
- USA FDA: GRAS — 21 CFR 184.1115.
- HS / AHECC Code: 1302.39.

SECTION 16 — Other Information

SDS Reference	SDS-BA-1019-AGAR
Issue Date	January 2026
Next Review	January 2028
Prepared by	Hassan Salimi — Founder & Technical Director, AuSaMicS Pty Ltd

DISCLAIMER: This Safety Data Sheet is provided in good faith based on data believed accurate at the issue date. AuSaMicS Pty Ltd makes no warranty and accepts no liability for errors. Users must verify suitability for their specific application and comply with all applicable legislation. Prepared per Safe Work Australia WHS Regulations 2023 and GHS 7th Edition.