



TECHNICAL DATA SHEET

DESCRIPTION R2A AGAR, BOTTLED
SGL PRODUCT CODE 4573

R2A agar (Reasoner's 2A agar) is a nutrient medium for the enumeration of heterotrophic bacteria in drinking water. The medium has a low nutrient content which makes the medium suitable for the recovery of stressed and chlorine-tolerant bacteria when used in combination with a low incubation temperature and an extended incubation time.

The formulation of the medium is as specified in the European pharmacopoeia (General notices) and in the Microbiology of Drinking Water part 7 – Methods for the enumeration of heterotrophic bacteria.

FORMULATION

Typical product composition*:

| COMPONENT | WEIGHT / VOLUME |
|-----------------------------------|-----------------|
| Enzymatic digest of casein | 0.25 g |
| Enzymatic digest of animal tissue | 0.25 g |
| Acid hydrolysate of casein | 0.5 g |
| Yeast extract | 0.5 g |
| Dextrose (glucose) | 0.5 g |
| Soluble starch | 0.5 g |
| Dipotassium phosphate | 0.3 g |
| Magnesium sulphate heptahydrate | 0.05 g |
| Sodium pyruvate | 0.3 g |
| Agar | 15.0 g |
| Purified water | 1000 ml |

*Product may be adjusted and/or supplemented to meet performance criteria

QUALITY CONTROL SPECIFICATION

| PHYSICAL TESTS | SPECIFICATION CRITERIA |
|----------------|------------------------|
| Appearance | Creamy, opaque gel |
| pH at 20-25°C | 7.2 ± 0.2 |

| STERILITY TESTS | SPECIFICATION CRITERIA |
|----------------------------------|------------------------|
| Incubation at 22-25°C for 5 days | No growth detected |
| Incubation at 35-37°C for 5 days | No growth detected |
| Incubation at 42-45°C for 5 days | No growth detected |

| GROWTH PROMOTION / INHIBITION TESTS | SPECIFICATION CRITERIA |
|---|--|
| <i>Bacillus subtilis</i> ATCC 6633 NCTC 10400 NMT 100 CFU inoculum | ≥70% CFU recovery compared to control at 30-35°C incubation after not more than 3 days |



| GROWTH PROMOTION / INHIBITION TESTS | SPECIFICATION CRITERIA |
|---|--|
| <i>Pseudomonas aeruginosa</i> ATCC 9027 NCTC 12924 NMT 100 CFU inoculum | ≥70% CFU recovery compared to control at 30-35°C incubation after not more than 3 days |
| <i>Escherichia coli</i> ATCC 8739 NCIB 8545 NCTC 12923 NMT 100 CFU inoculum | ≥70% CFU recovery compared to control at 35-37°C incubation after not more than 1 day |
| <i>Staphylococcus aureus</i> ATCC 6538 NCTC 10788 NMT 100 CFU inoculum | ≥70% CFU recovery compared to control at 35-37°C incubation after not more than 1 day |
| <i>Pseudomonas aeruginosa</i> ATCC 27853 NCTC 12934 NMT 100 CFU inoculum | ≥70% CFU recovery compared to control at 35-37°C incubation after not more than 1 day |

NMT = Not more than

NLT = Not less than

CFU = Colony forming units

Additional specification testing may be performed as requested by the customer.

Manufactured in compliance with ISO 9001 (Ref No FM37824) and tested in accordance with ISO 11133 by a UKAS (ISO 17025) accredited laboratory (Ref No. 4356).