

PhytoTechnology Laboratories®

Helping to Build a Better Tomorrow through Plant Science™

Product Information Sheet

T7968 Trehalose Dihydrate

Synonyms: Trehalose,

alpha-D-Glucopyranosyl-alpha-Dglucopyranoside

CAS: 6138-23-4Formula: $C_{12}H_{22}O_{11}*2H_2O$

Mol. Weight: 378.33

Properties

Form: Powder Appearance: White

Solubility: Soluble in Water

Application: Microbiology, Phytopathology, Seed Testing

Storage Temp: Room Temperature

Typical Working Concentration:

Varies, should be determined by end user.

Application Notes

Generally used as a carbon source. Use with PhytoSelect Basal Medium (Prod# P6800) in combination with antimicrobials (see tabel below) to create a selection medium for *Pectobacterium carotovorum*. The complete selection medium with carbon source and antimicrobials was developed by Kawanishi et al. (2011) and named SMART-Pca.

Combine the following products to make 1L of SMART-Pca medium for P. carotovorum (Kawanishi et al. 2011):

| Prod # | Name of Component: Amount to add to make 1L |
|---------------------|---|
| P6800 | PhytoSelect Basal Medium: 1L (24.927 g) |
| T7968 | Trehalose: 1.0 g |
| *C1989 OR *C1796 | Cycloheximide: 50 mg OR Cycoheximide Soln (100 mg/mL) – add 0.50 mL |
| *H276 | CTAB (Cetrimonium): 10 mg |
| *C1970 OR *C2112 | Cephalexin: 10 mg OR Cephalexin Soln (100 mg/mL) – add 0.10 mL |

^{*}All antibiotic powders or solutions should be aseptically added to the medium after autoclaving and allowing to cool

Also recommended in the International Seed Testing Association's (ISTA) Rules for Seed Testing Handbook, in method 7-020 to prepare MKM agar for selection of *Xanthamonas hortorum* pv. *carotae* on *Daucus carota* (ISTA 2011).

References

ISTA (2011) Annexe to Chapter 7: Seed Health Methods.

Kawanishi T, T. Shiraishi, Y. Okano, K. Sugawara, M. Hashimoto, K Maejima, K Komatsu, S Kakizawa, Y Yamaji, H Hamamoto, K Oshima, S Namba (2011) New Detection Systems of Bacteria Using Highly Selective Media Designed by SMART: Selective Medium-Design Algorithm Restricted by Two Constraints. PLoS ONE Volume 6, Issue 1.

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