



## Product Information Sheet

**P6820**  
**PTC<sup>3</sup>**

Synonym: Plant Tissue Culture Contamination Control, PTCubed, PTCCC

### Properties:

Form: Liquid  
Appearance: Clear  
Application: Plant Tissue Culture Biostat/Fungistat  
Solubility: Freely soluble in water  
Typical Working Concentration: 0.2 - 2 mL/L for general usage. >2mL/L it can act as a biocide  
Storage Temp: 2-6°C  
Other Notes: Proprietary Formulation  
Autoclavable

### Application Notes:

We have compared PTC<sup>3</sup> in our laboratories to another popular contamination control product, and found that it performs equivalently in reducing bacterial and fungal growth. Shown below in Figure 1, both *Bacillus subtilis*, *Escherichia coli*, and *Agrobacterium tumefaciens* inoculated in log-phase growth to 1X Murashige & Skoog (MS) liquid with 0.2% (v/v) PTC<sup>3</sup> or 0.2% (v/v) competitor product did not grow to the extent that it did in just 1X Murashige & Skoog liquid media over 16 hours at 25°C and shaking at 125 RPM.

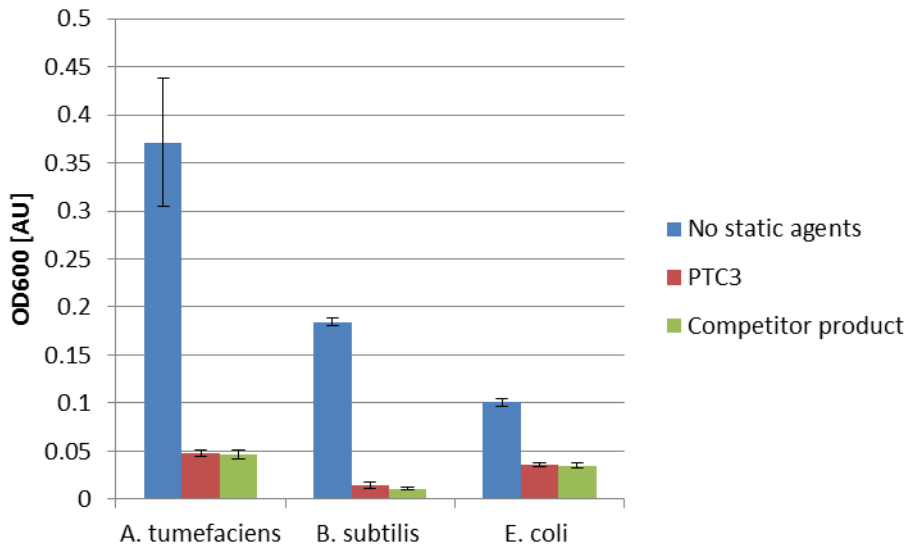


Figure 1. Bacterial Growth Inhibition of PTC<sup>3</sup> (0.2 v/v%) and a similar product (0.2 v/v%) in 1X liquid MS

PTC<sup>3</sup> was also shown to inhibit fungal growth of *Aspergillus niger* on 1X Murashige & Skoog gelled media. Through 7 days at 25°C, no fungal growth was observed on cultures containing 0.2% (v/v) PTC<sup>3</sup> or 0.2% (v/v).

The components of this product can be bound by proteins in media (e.g. peptone, casein) and rendered inactive.

At PhytoTechnology Laboratories we believe that there is no substitute for proper explant disinfection in the maintenance of long-term stock cultures. However for educational demonstration purposes or hobbyist's looking to

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try plant tissue culture, PTC<sup>3</sup> will allow you to perform routine tissue culture less stringently with a lower concern of losing your tissue culture to everyday contamination.

Please Note: While PhytoTechnology Laboratories® tests each lot of this product with two or more plant cell/ tissue culture lines, it is the sole responsibility of the purchaser to determine the appropriateness of this product for the specific plants that are being cultured and applications that are being used.