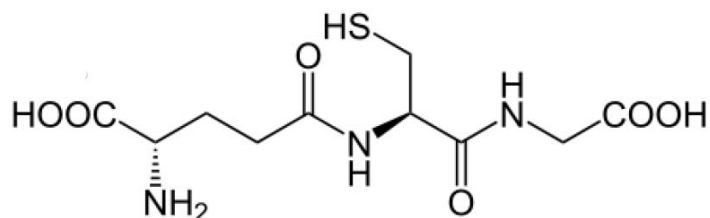


Product Information Sheet

G3399
**Glutathione (Reduced),
Free Acid**


Synonyms: γ -L-Glutamyl-L-cysteinyl-glycine, GSH
 CAS: 70-18-8
 Formula: C₁₀H₁₇N₃O₆S
 Mol. Weight: 307.33

Properties

Form: Powder
 Appearance: Off-White to White
 Application: Plant Defense; Antioxidant
 Solubility: Water
 Storage Temp: 2-6°C
 Typical Working Concentration: Varies by application. Concentration should be determined by end user.
 Other Notes: Plant Tissue Culture Tested

Application Notes

Glutathione (GSH) is an important antioxidant in plants, animals, fungi and some bacteria and archaea. It prevents damage to vital cellular components caused by reactive oxygen species such as free radicals and peroxides (Pompella, 2003).

Glutathione is required for efficient defense against plant pathogens such as *Pseudomonas syringae* and *Phytophthora brassicae* (Parisy et al, 2006).

References

- Parisy, V; Poinssot, B; Owsianowski, L; Buchala, A; Glazebrook, J; Mauch, F (2006) Identification of PAD2 as a γ -glutamylcysteine synthetase highlights the importance of glutathione in disease resistance of Arabidopsis. *The Plant Journal* 49 (1): 159–72.
- Pompella, A; Visvikis, A; Paolicchi, A; Tata, V; Casini, AF (2003) The changing faces of glutathione, a cellular protagonist. *Biochemical Pharmacology* 66 (8): 1499–503.

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Product Information Sheet

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.

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