

Product Data Sheet

Product Name: Thiobencarb

Cat. No.: GD21822

Chemical Properties

Cas. No. 28249-77-6

Formula C₁₂H₁₆CINOS M.Wt 257.78

Solubility DMSO : 100 mg/mL (387.93 mM; Storage
Need ultrasonic)

General For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the
tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT , or
Condition blue ice upon request.

Structure



Background

Thiobencarb is an herbicide, can reduce growth, photosynthetic activity, and amount of rieske iron-sulfur protein in the diatom *Thalassiosira pseudonana*.

Thiobencarb (0.078-5 mg/L, 72 h) concentrations producing 10%, 20%, and 50% growth inhibition are calculated to be 0.55, 0.79, and 1.26 mg/L, respectively^[1].

Thiobencarb (5, 2.5 mg/L, 6 h) is drastically decreased in the Fv/Fm ratio, after exposure of cells for up to 6 h under light and in darkness and three representative inhibitors of the photosynthetic electron transport chain^[1].

Thiobencarb (5 mg/L, 24 h) increase expression levels of 13 proteins significantly and those of 11 proteins decreased significantly in *Thalassiosira pseudonana*. Among these proteins, the level of the Rieske iron-sulfur protein was decreased to less than half of the control level^[1].

[1]. Shimasaki Y, et al. Thiobencarb herbicide reduces growth, photosynthetic activity, and amount of Rieske iron-sulfur protein in the diatom *Thalassiosira pseudonana*. J Biochem Mol Toxicol. 2013 Sep;27(9):437-44.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA