

Product Data Sheet

Product Name: Arsenobetaine

Cat. No.: GC49292

Chemical Properties

Cas. No. 64436-13-1

SMILES O=C(C[As+](C)(C)C)[O-]

Formula C₅H₁₁AsO₂

M.Wt 178.1

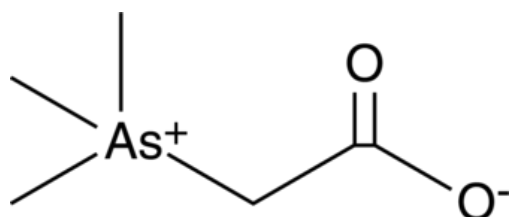
Solubility Water: soluble

Storage -20°C; protect from light

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

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

Structure



Background

Arsenobetaine is an organoarsenical and a compatible solute that has been found in various marine animals, such as lobsters and crabs, as well as terrestrial organisms, including earthworms and lichens.^{1,2} It is protective against *B. subtilis* cell death induced by high osmolarity or extreme temperatures when used at a concentration of 1 mM.² Arsenobetaine is non-toxic to mice (LD₅₀ = 10 g/kg).^{1,2}

1. Popowich, A., Zhang, Q., and Le, X. Arsenobetaine: The ongoing mystery. *Natl. Sci. Rev.* 3(4):451-458 (2016)
2. Hoffmann, T., Warmbold, B., Smits, S.H.J., et al. Arsenobetaine: An ecophysiological important organoarsenical confers cytoprotection against osmotic stress and growth temperature

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

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extremes Environ. Microbiol. 20(1) 305-323 (2018)

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