
Product Data Sheet

Product Name: Methylisothiazolinone hydrochloride

Cat. No.: GC65419

Chemical Properties

Cas. No. 26172-54-3

Formula C₄H₆ClNOS

M.Wt 151.61

Solubility DMSO : 100 mg/mL (659.59 mM; Need ultrasonic)

Storage 4°C, away from moisture

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

Methylisothiazolinone (MI) is an isothiazolinone-derived biocide used for controlling microbial growth in industrial and household products, often in a mixture with 5-chloro-2-methyl-3-isothiazolone (MCI).^{1,2} MI is active against Gram-positive and Gram-negative bacteria, fungi, and yeast with MIC values of 0.0045, 0.0015, >0.01, and 0.0065% (w/w) for *S. aureus*, *P. aeruginosa*, *A. niger*, and *C. albicans*, respectively, when used alone.¹ MIC values are 7 to 200-fold lower when MI is used in combination with MCI. MI decreases neurite outgrowth of rat cortical neurons when used at concentrations of 0.1-3 μM and inhibits Src family kinases in cell-free assays.³ MI, alone and as a mixture with MCI, can elicit contact sensitization.²

1. Lundov, M.D., Johansen, J.D., Zachariae, C., et al. Low-level efficacy of cosmetic preservatives. *Int. J. Cosmet. Sci.* 33(2)190-196(2011) 2. Scherrer, M.A.R., and Rocha, V.B. Increasing trend of sensitization to methylchloroisothiazolinone/methylisothiazolinone (MCI/MI). *An. Bras. Dermatol.* 89(3)527-528(2014) 3. He, K., Huang, J., Lagenaur, C.F., et al. Methylisothiazolinone, a neurotoxic biocide, disrupts the association of SRC family tyrosine kinases with focal adhesion

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

kinase in developing cortical neurons]. Pharmacol. Exp. Ther.317(3)1320-1329(2006)

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