

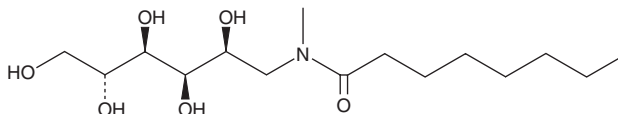
# PRODUCT INFORMATION



## MEGA-8

Item No. 25701

**CAS Registry No.:** 85316-98-9  
**Formal Name:** 1-deoxy-1-[methyl(1-oxooctyl)amino]-D-glucitol  
**Synonym:** N-octanoyl-N-Methylglucamine  
**MF:**  $C_{15}H_{31}NO_6$   
**FW:** 321.4  
**Purity:**  $\geq 98\%$   
**Supplied as:** A crystalline solid  
**Storage:**  $-20^{\circ}\text{C}$   
**Stability:**  $\geq 2$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

MEGA-8 is supplied as a crystalline solid. A stock solution may be made by dissolving the MEGA-8 in the solvent of choice. MEGA-8 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of MEGA-8 in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

MEGA-8 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MEGA-8 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. MEGA-8 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

MEGA-8 is a nonionic detergent that can be used to solubilize membrane proteins.<sup>1</sup> It has a critical micelle concentration (CMC) of 70 mM under no-salt conditions and CMCs ranging from 5 to 64 mM under high and low salt conditions for a variety of salts.<sup>2</sup>

### References

1. Ko, J.-S., Oh, S.-W., Kim, K.-W., *et al.* Blending effects on adsorption and micellization of different membrane protein solubilizers: A thermodynamic study on three mixed systems of CHAPS with MEGA-8, -9 and -10 in pH 7.2 phosphate buffer solution. *Colloids Surf. B Biointerfaces* **45**(2), 90-103 (2005).
2. Miyagishi, S., Okada, K., and Asakawa, T. Salt effect on critical micelle concentrations of nonionic surfactants, N-acyl-N-methylglucamides (MEGA-n). *J. Colloid. Interface Sci.* **238**(1), 91-95 (2001).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/11/2018

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM