# PRODUCT INFORMATION



## Arsenobetaine

Item No. 34515

CAS Registry No.: 64436-13-1

Formal Name: (carboxymethyl)trimethyl-arsonium, inner salt

C<sub>5</sub>H<sub>11</sub>AsO<sub>2</sub> MF: FW: 178.1 **Purity:** ≥95% Supplied as: A solid

-20°C Storage: Stability: ≥4 years Item Origin: Synthetic

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

### **Laboratory Procedures**

Arsenobetaine is supplied as a solid. A stock solution may be made by dissolving the arsenobetaine in water. We do not recommend storing the aqueous solution for more than one day.

## Description

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.<sup>1,2</sup> It is protective against B. subtilis cell death induced by high osmolarity or extreme temperatures when used at a concentration of 1 mM.<sup>2</sup> Arsenobetaine is non-toxic to mice ( $LD_{50} = 10 \text{ g/kg}$ ).<sup>1,2</sup>

### References

- 1. Popowich, A., Zhang, Q., and Le, X. Arsenobetaine: The ongoing mystery. Natl. Sci. Rev. 3(4), 451-458
- 2. Hoffmann, T., Warmbold, B., Smits, S.H.J., et al. Arsenobetaine: An ecophysiologically important organoarsenical confers cytoprotection against osmotic stress and growth temperature extremes. Environ. Microbiol. 20(1), 305-323 (2018).

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

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.

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## **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