

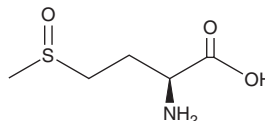
PRODUCT INFORMATION



L-Methionine Sulfoxide

Item No. 36255

CAS Registry No.: 3226-65-1
Formal Name: L-methionine, S-oxide
Synonyms: 2S-Amino-4-(methylsulfinyl) butanoic Acid, Methionine S-oxide, MetO, Met Sulfoxide
MF: C₅H₁₁NO₃S
FW: 165.2
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

L-Methionine sulfoxide is supplied as a solid. Aqueous solutions of L-methionine sulfoxide can be prepared by directly dissolving the solid in aqueous buffers. The solubility of L-methionine sulfoxide in PBS (pH 7.2) is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

L-Methionine sulfoxide is an endogenous sulfoxide-modified form of methionine.^{1,2} It is formed from L-methionine by oxidative damage and can be reduced back to L-methionine by methionine sulfoxide reductase A (MSRA) and MSRB.¹ Dietary replacement of L-methionine with L-methionine sulfoxide (6.3, 12.6, and 18.9 mmol/g) increases weight gain in weanling mice.² The levels of L-methionine sulfoxide, MSRA, and MSRB are decreased in patients with vitiligo, a condition characterized by loss of skin pigmentation.¹

References

- Schallreuter, K.U., Rübsam, K., Gibbons, N.C.J., *et al.* Methionine sulfoxide reductases A and B are deactivated by hydrogen peroxide (H₂O₂) in the epidermis of patients with vitiligo. *J. Invest. Dermatol.* **128**(4), 808-815 (2007).
- Friedman, M. and Gumbmann, M.R. Nutritional value and safety of methionine derivatives, isomeric dipeptides and hydroxy analogs in mice. *J. Nutr.* **118**(3), 388-397 (1988).

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, 03/28/2023

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