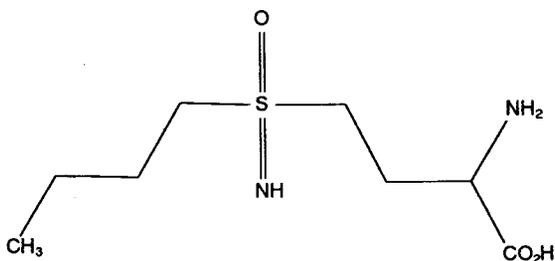


BSO

NSC - 326231



Chemical Name:

2-amino-4-(S-butylsulfonimidoyl)-L-butanoic acid

Other Names:

L-Buthionine sulfoximine

CAS Registry Number: 83730-53-4

Molecular Formula: C₈H₁₈N₂O₃S

M.W.: 222.3

Approximate Solubility:	(mg/mL)
H ₂ O	> 100
Acetate buffer, pH4	> 100
Carbonate buffer, pH9	> 100
0.1 N HCl	> 100
0.1 N NaOH	> 100
MeOH	< 1
EtOH (95%)	< 1
CH ₃ CN	< 1
EtOAc	< 1
CHCl ₃	< 1
Dimethylacetamide	< 1
DMSO	< 1

Stability:

Bulk:

Samples subjected to both light and dark conditions at room temperature showed no decomposition after 90 days. Samples kept at 50 °C in both light and dark conditions showed about 1% decomposition after 90 days.

Solution:

BSO was found to be stable in aqueous solution for 72 hours when stored at room temperature and under laboratory light.

Ultraviolet Absorption:

(H₂O)

No absorbance was observed between 220-420 nm.

High Performance Liquid Chromatography:

Column:	Alltech Econosphere C ₁₈ , 5 μ 250 x 4.6 mm i.d.
Mobile Phase:	0.01 M Phosphate buffer, pH 5.0
Flow Rate:	1.0 mL/min
Detection:	UV at 205 nm
Sample Preparation:	Samples were prepared in distilled H ₂ O to give concentrations of approximately 0.57 mg/mL.
Internal Standard:	Thymine (0.003 mg/mL in distilled H ₂ O)
Retention Volume:	9.95 mL (NSC-326231) 14.3 mL (I.S.)
Optical Rotation:	
(c = 1, 1 N HCl)	$[\alpha]_D^{20} = +32.5 \pm 2^\circ$