

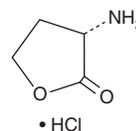
# PRODUCT INFORMATION



## L-Homoserine lactone (hydrochloride)

Item No. 31492

**CAS Registry No.:** 2185-03-7  
**Formal Name:** (3S)-3-aminodihydro-2(3H)-furanone, monohydrochloride  
**Synonym:** (S)-Homoserine lactone, L-HSL  
**MF:** C<sub>4</sub>H<sub>7</sub>NO<sub>2</sub> • HCl  
**FW:** 137.6  
**Purity:** ≥95%  
**Supplied as:** A crystalline 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-Homoserine lactone (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the L-homoserine lactone (hydrochloride) in the solvent of choice, which should be purged with an inert gas. L-Homoserine lactone (hydrochloride) is soluble in the organic solvent DMSO at a concentration of approximately 10 mg/ml. While L-homoserine lactone (hydrochloride) is also soluble in ethanol and other primary alcohols, their use is not recommended as they have been shown to open the lactone ring.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of L-homoserine lactone (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of L-homoserine lactone (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

L-Homoserine lactone is a synthetic intermediate.<sup>1,2</sup> It has been used in the synthesis of organoselenium chemistry intermediates and analogs of bacterial quorum-sensing signaling molecules.

### References

1. Koch, T. and Buchardt, O. Synthesis of L-(+)-selenomethionine. *Synthesis* 1065-1067 (1993).
2. Chhabra, S.R., Harty, C., Hooi, D.S.W., et al. Synthetic analogues of the bacterial signal (quorum sensing) molecule N-(3-oxododecanoyl)-L-homoserine lactone as immune modulators. *J. Med. Chem.* **46**(1), 97-104 (2003).

**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.

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