

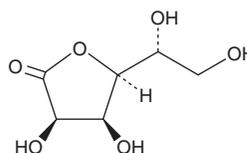
PRODUCT INFORMATION



D-Gulono-1,4-lactone

Item No. 20888

CAS Registry No.: 6322-07-2
Formal Name: γ -lactone D-gulonic acid
Synonyms: D-Gulonic Acid-1,4-lactone,
D-Gulonic Acid γ -lactone,
D-Gulono γ -lactone, NSC 34392
MF: $C_6H_{10}O_6$
FW: 178.1
Purity: $\geq 95\%$
UV/Vis.: λ_{max} : 215 nm
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥ 4 years



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

Laboratory Procedures

D-Gulono-1,4-lactone is supplied as a crystalline solid. A stock solution may be made by dissolving the D-gulono-1,4-lactone in the solvent of choice, which should be purged with an inert gas. D-Gulono-1,4-lactone is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of D-gulono-1,4-lactone in these solvents is approximately 3 mg/ml.

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 D-gulono-1,4-lactone can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of D-gulono-1,4-lactone in PBS (pH 7.2) is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

D-Gulono-1,4-lactone is a hexanoic acid used as a starting material in enantiomerically pure compound syntheses, including carbohydrate syntheses.^{1,2}

References

1. Crawford, T.C. Process for preparing 3,5:4,6- protected derivatives of L- or D- gulonic acid, their use in preparing 2- keto-L- or D- gulonic acid or their esters or L- or D- ascorbic acid, and certain novel 2-nitrato-gulonate intermediates. (1979).
2. Hajkó, J., Lipták, A., and Pozsgay, V. Synthesis of L-glucose from D-gulono-1,4-lactone. *Carbohydr. Res.* **321(1-2)**, 116-120 (1999).

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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