

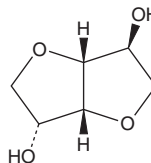
PRODUCT INFORMATION



Isosorbide

Item No. 33197

CAS Registry No.: 652-67-5
Formal Name: 1,4:3,6-dianhydro-D-glucitol
Synonyms: 1,4:3,6-dianhydro-D-Sorbitol,
(+)-D-Isosorbide, NSC 40725
MF: C₆H₁₀O₄
FW: 146.1
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

Isosorbide is supplied as a crystalline solid. A stock solution may be made by dissolving the isosorbide in the solvent of choice, which should be purged with an inert gas. Isosorbide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of isosorbide in these solvents is approximately 30 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 isosorbide can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of isosorbide in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Isosorbide is a 1,4:3,6-dianhydrohexitol that can be derived from glucose.¹ It has been used in the synthesis of the nitric oxide (NO) donors isosorbide mono- and dinitrate, which have vasodilatory activity. Isosorbide has also been used as a monomer or building block in the synthesis of various polymers and functional materials, respectively.

Reference

1. Rose, M. and Palkovits, R. Isosorbide as a renewable platform chemical for versatile applications--Quo vadis? *ChemSusChem* **5**(1), 167-176 (2012).

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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