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Product Information

Calcium sulfate dihydrate

Product Number **C3771**
Store at Room Temperature

Product Description

Molecular Formula: $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$
Molecular Weight: 172.2
CAS Number: 10101-41-4

Calcium sulfate is a reagent that is used in various industrial and medical applications. The former include the manufacture of cement and plaster of Paris, use as a filler or glaze in paints, enamels, and pharmaceuticals, and water and soil treatment.¹ Calcium sulfate is also used in orthopedic surgery, bone grafts, and dental microsurgery.^{2,3,4}

A procedure for the isolation of bean curds from legume protein fractions has been published.⁵ The effect of calcium sulfate on glutamate binding to rat brain membrane vesicles has been reported.⁶ An investigation into the use of vegetable oil/calcium sulfate matrices in the release of water-soluble drugs has been published.⁷

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in 1.9 M HCl (33 mg/ml), with heat as needed, yielding a clear, colorless solution. The solubility of calcium sulfate dihydrate in water at 20 °C has been reported at 2 mg/ml.⁷

References

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3. Bucholz, R.W., Nonallograft osteoconductive bone graft substitutes. *Clin. Orthop.*, **395**, 44-52 (2002).
4. Pecora, G., et al., Barrier membrane techniques in endodontic microsurgery. *Dent. Clin. North Am.*, **41(3)**, 585-602 (1997).
5. Cai, R., et al., Preparation of bean curds from protein fractions of six legumes. *J. Agric. Food Chem.*, **49(6)**, 3068-3073 (2001).
6. Hollmann, M., et al., Calcium ions induce glutamate transport into rat brain membrane vesicles in the absence of sodium and chloride. Evidence for a novel uptake site? *FEBS Lett.*, **228(1)**, 74-78 (1988).
7. Martini, L. G., et al., The use of a hydrophobic matrix for the sustained release of a highly water soluble drug. *Drug Dev. Ind. Pharm.*, **26(1)**, 79-83 (2000).
8. CRC Handbook of Chemistry and Physics, 82nd ed., Lide, D. R., ed., CRC Press (Boca Raton, FL: 2001), p.4-50.

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