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Product Information

Bupivacaine hydrochloride

Product Number **B 5274**
Store at Room Temperature

Product Description

Molecular Formula: $C_{18}H_{28}N_2O \cdot HCl$
Molecular Weight: 324.9
CAS Number: 14252-80-3
Melting point: 255-256 °C¹
pK_a: approximately 8.1²
Synonym: marcaine¹

This product is used as a long-acting local anesthetic.² It is used mainly for infiltration and regional nerve blocks, but is not recommended for topical anesthesia. Slow accumulation can occur with repeated doses.

The UV, MS, NMR, and IR spectra for bupivacaine are reported.³ In particular, the UV trace of a sample dissolved in 0.2 N sulfuric acid shows a maximum at 262 nm with a shoulder at 271 nm. There is also significant end-absorbance below 250 nm. The product precipitates in base, so the UV spectrum at pH >7 cannot be readily measured.

Precautions and Disclaimer

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

Preparation Instructions

This product is soluble in water (50 mg/ml), with heating. It is reported to be soluble at 1 part in 25 parts water and 1 part in 8 parts ethanol.¹ This compound is not very soluble in phosphate buffers. Solutions can be autoclaved.

References

1. The Merck Index, 10th ed., Entry# 1462.
2. Martindale The Extra Pharmacopoeia, 29th ed., Reynolds, J. E. F., ed., The Pharmaceutical Press (London, England: 1989), p. 1209-1211.
3. Instrumental Data for Drug Analysis, 2nd ed., vol. 1, Elsevier (New York, NY: 1987), pp. 270-271.

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