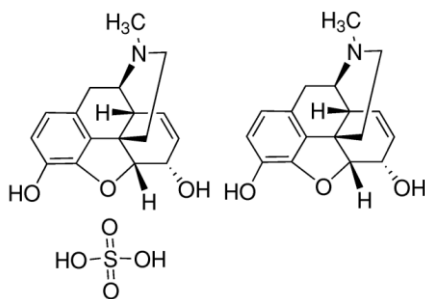


Product Information

Morphine sulfate salt solution
1.0 mg/mL±5% in methanol
drug standard

Catalog Number **M9524**
Lot Number SLBQ5023V
Storage Temperature $-20\text{ }^{\circ}\text{C}$

CAS RN 64-31-3
Synonyms: (5 α , 6 α)-7,8-Didehydro-4,5-epoxy-17-methylmorphinan-3,6-diol sulfate



Product Description

Molecular Formula: $\text{C}_{34}\text{H}_{38}\text{N}_2\text{O}_6 \cdot \text{H}_2\text{SO}_4$
Molecular Weight: 668.75

DEA Class: Exempt preparation of Class II

Concentration: 1.16 mg of morphine sulfate (equivalent to 0.99 mg of free base)/mL of GC grade methanol (concentration verified by UV)

Expiration Date: April 2019

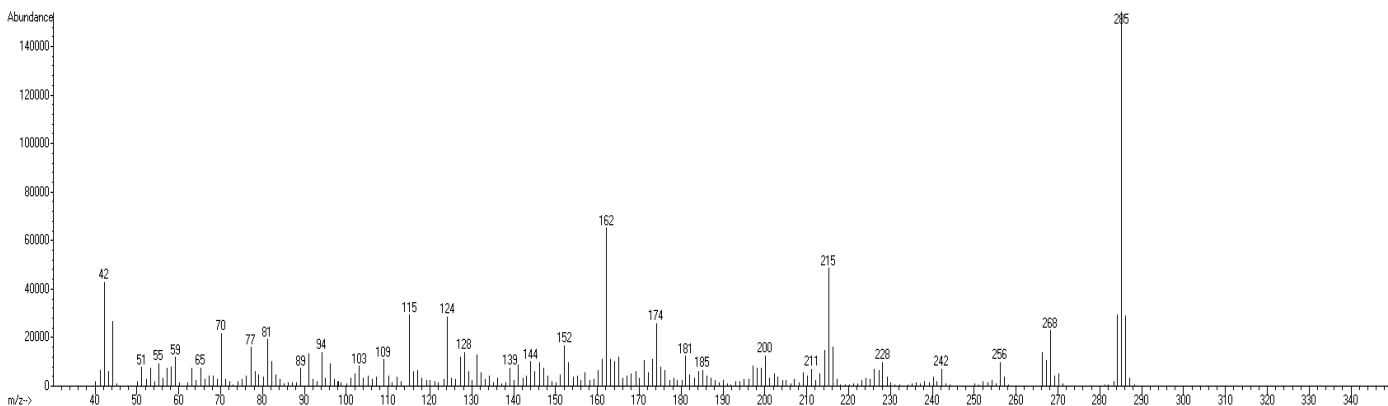
Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store the product at $-20\text{ }^{\circ}\text{C}$. If stored at $-20\text{ }^{\circ}\text{C}$ in an airtight container, protected from light, decomposition of the product is less than 1% in 24 months. After opening, concentration may change due to loss of solvent.

CMW,MAM 04/16-1



70 eV Electron Ionization Mass Spectrum

Hewlett-Packard 6890 Series II Gas Chromatograph
Hewlett-Packard 5973 Mass Selective Detector
Hewlett-Packard G1701DA MS ChemStation (HP-DOS series)

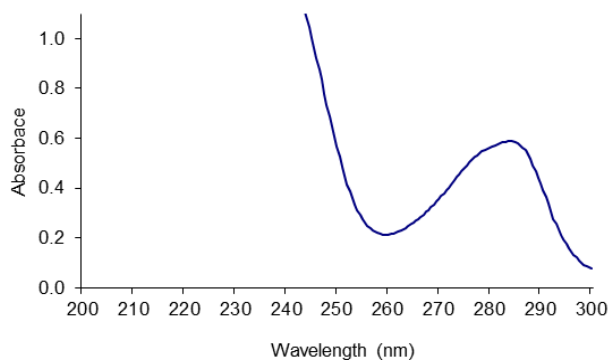
FT-IR



Nicolet 380 FT-IR with Thermo Smart Orbit attachment

Ultraviolet Spectrum

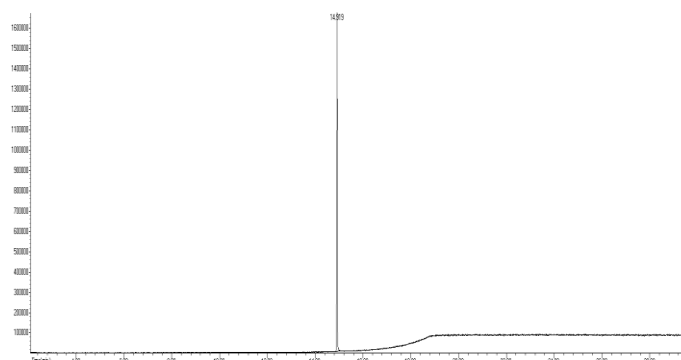
Peak	284.0 nm
Absorbance	0.5878
Solvent	0.2 N H ₂ SO ₄
Dilution	1:9 (v/v)



Beckman-Coulter DU 800

Capillary Gas Chromatography

Column Supelco SPB-1 (Catalog Number 24162)
I.D. 0.20 mm **Length** 15 m **Film Thickness** 0.20 μm
Oven Temperature 50 °C (2 minutes), then
15 °C/minute to 300 °C, hold 11 minutes
Injector Temperature 250 °C, Split
Detector Hewlett-Packard 5973
Mass Selective Detector (70 eV, 40-500 m/z)



Hewlett-Packard 6890