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## Product Information

### DEXTROMETHORPHAN HYDROBROMIDE SIGMA REFERENCE STANDARD

Product No. **D 1053**

Lot No: 46H9440

Storage Temperature: room temperature

Formula:  $C_{18}H_{25}NO \cdot HBr \cdot H_2O$

Formula Weight: 370.33

CAS No: 6700-34-1

Synonyms: Morphinan, 3-methoxy-17-methyl-,  
(9 $\alpha$ ,13 $\alpha$ ,14 $\alpha$ )-, hydrobromide,  
monohydrate.

3-Methoxy-17-methyl-9 $\alpha$ ,13 $\alpha$ ,14 $\alpha$ -  
morphinan hydrobromide, monohydrate.

#### Product Description

This product meets USP specifications (Current through USP 23, 4th Supplement), and is traceable to USP Reference Standard lot I

Preserve in tight containers at room temperature. Do not dry; determine water content titrimetrically at time of use. Use promptly. Discard unused material.

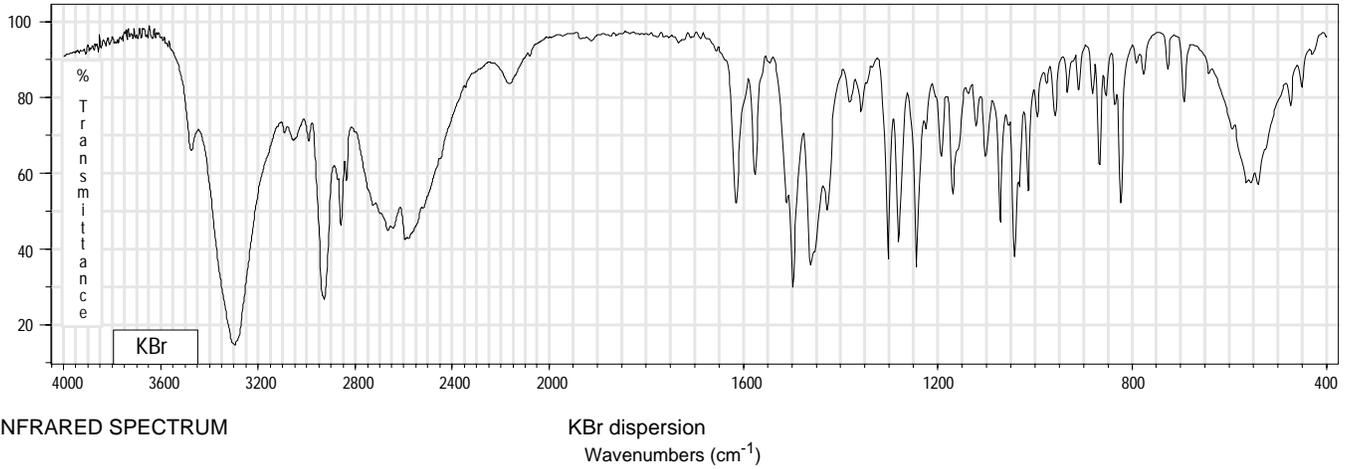
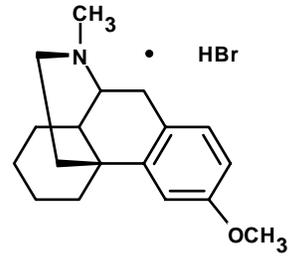
TEST	USP 23 SPECIFICATIONS	Result Sigma R.S. Lot 46H9440
Infrared absorption spectrum (197K)	compares to standard	conforms to USP RS lot I
Ultraviolet absorption spectrum 100 $\mu$ g/mL (197U)	absorptivities at 278 nm, calculated on the anhydrous basis, differ by not more than 3%	conforms to USP RS lot I
Identification C	when dissolved 1 in 200, acidified with nitric acid, the addition of silver nitrate causes a yellowish white precipitate to form.	passes
Specific rotation, $[\alpha]_{325}$ 180 mg/10 ml solution in dioxane (781)	specific rotation at 325 nm, calculated on the anhydrous basis, does not differ from standard by more than 1.0%	passes
pH 1 in 100 solution (791)	between 5.2 and 6.5	6.5
Water, <i>Method I</i> (921)	between 3.5% and 5.5%	4.8%
Residue on ignition (281)	not more than 0.1%	passes
Limit of N,N-dimethylaniline	0.001%	passes
Phenolic compounds	no blue-green color develops	passes
Assay — high pressure liquid chromatography (621)	not less than 98.0% and not more than 102.0%	101.8%
HPLC column L1 <b>Supelco SUPELCOSIL ABZ+PLUS</b> 25 cm x 4.6 mm, 5 $\mu$ m particles (Catalogue No. 5-9197)		

See reverse side for IR & UV spectrum of Sigma Reference Standard.

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**SIGMA REFERENCE STANDARD**

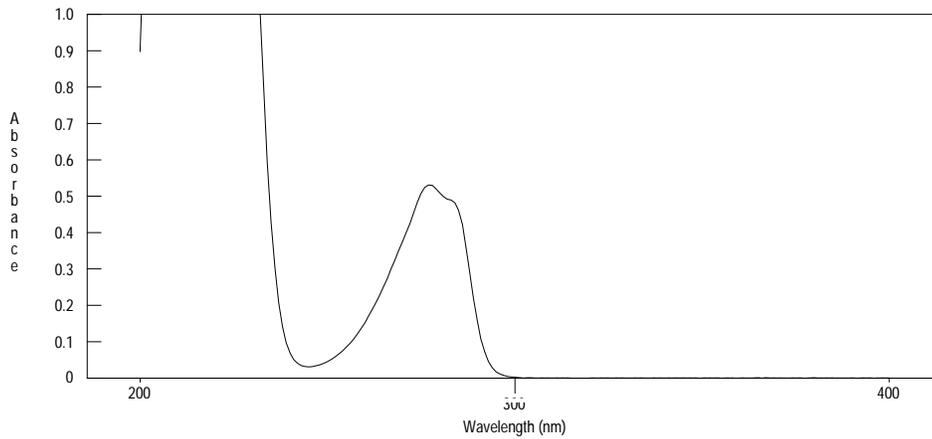
Product No. **D1053**

Lot 46H9440



INFRARED SPECTRUM

KBr dispersion  
Wavenumbers (cm<sup>-1</sup>)



7/2000

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Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications.  
Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply.  
Please see reverse side of the invoice or packing slip.

ULTRAVIOLET SPECTRUM

95.0 µg/mL in 0.1 N HCl