



MP Biomedicals, LLC

29525 Fountain Parkway
Solon, Ohio 44139

Telephone: 440/337-1200
Toll Free: 800/854-0530

Fax: 440/337-1180
web: www.mpbio.com

Certificate of Analysis

Product Description: Methotrexate, USP and EP Grade_
Catalog Number: 199855_
Lot: 9071H_

Formula: C₂₀H₂₂N₈O₅

CAS #: 59-05-2

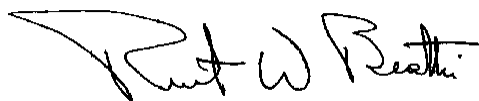
Physical Description: Yellow powder

Formula Weight: 454.46

Storage: +4°C

Test	Compendium	Specification	Results
Identity Test A	USP	Passes	Passes
Identity Test C	EP	Passes	Passes
Identity Test A	EP	Passes	Passes
Identity Test B	USP	Passes	Passes
Identity Test B	EP	Passes	Passes
Specific Rotation (anhydrous basis)	USP	+19° to +24°	+21.2°
Water	USP	≤12.0%	10.2%
Water	EP	≤13.0%	10.2%
Chromatographic Purity	USP	Passes	Passes
Related Substances	EP	Passes	Passes
(R)-Methotrexate	EP	≤3.0%	0.6%
Heavy Metals	EP	≤50 ppm	<20 ppm
Sulfated Ash	EP	≤0.1%	0.07%
Residue on Ignition	USP	≤0.1%	0.07%
Organic Volatile Impurities	USP	Passes	Passes

Methotrexate Content (anhydrous basis as $C_{20}H_{22}N_8O_5$)	USP	Not less than 98% and not more than 102.0%	99.7%
--	-----	--	-------



11/22/2005 - Robert Beattie

MP Biomedicals, LLC.

Technical Director

This is an electronically generated document

<mailto:biotech@mpbio.com>

<http://www.mpbio.com>

Online Ordering, MSDSs, certificates of analysis and data sheets now available on our web site

Technical Service: 1-800-279-5490 (440-337-1200) Customer Service: 1-800-854-0530 (440-337-1200)