



**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:** Melphalan\_  
**Catalog Number:** 155345\_  
**Lot:** Q8427\_

**Formula:** C<sub>13</sub>H<sub>18</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>2</sub>

**CAS #:** 148-82-3

**Physical Description:** Off-White Powder

**Formula Weight:** 305.2

**Storage:** protect from light, 15 - 30°C

Test	Specification	Result
Identity Test	Passes	Passes
Purity	#95%	98.54%
FTIR	Conforms to Standard	Conforms to Standard
Melting Point	175 - 185°C	175.4 - 179.0°C
Moisture	#7%	2.25%
Optical Rotation (c=0.7, methanol)	-31° ± 5°	-32.68°

Solution: Clear, colorless

Diethylamine: 0.40%

Sulphated ash: 0.04%

Related Substances:

- Impurity D: 2.40%

- Impurity G: 0.67%

- Impurity J: 0.13%

- Impurity H: 0.10%

- Impurity B: 0.01%

- Impurity I: 0.04%

- Unspecified impurities: 0.06%

- Total impurities: 3.61%

Recommended Retest Date: 09/04/2020

01/25/2018 - John Huang, PhD  
MP Biomedicals, LLC.  
Quality Control Manager

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)