

**MP Biomedicals, LLC**

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## Certificate of Analysis

**Product Description:** Vitamin K1

**Catalog Number:** 103283

**Lot:** 1847K

**Formula:**  $C_{31}H_{46}O_2$

**CAS #:** 84-80-0

**Physical Description:** Thick Yellow to Amber Liquid

**Formula Weight:** 450.7

**Storage:** +4°C, protect from light

Test	Specification	Result
Identity Test A	Positive	Positive
Identity Test B	Positive	Positive
Reaction to Litmus (5% in alcohol)	Neutral	Neutral
Refractive Index @ 25°C	1.523 - 1.526	1.524
Menadione	Not Detected	Not Detected
Z Isomer Content	# 21.0%	12.6%
Assay (Total E and Z Isomers)	≥97.0%	98.0%

**Solubility:** Insoluble in water, soluble in dehydrateed alcohol,benzene, chloroform, ether,vegetable oil and alcohol.

10/09/2008 - Robert Beattie

MP Biomedicals, LLC.

Technical Director

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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)