

2#14601  
 I0239  
 8-26-22

# Shandong Guangtongbao Pharmaceuticals Co., Ltd

1755 West Fangongting Road Qingzhou City, Shandong, China P.C. 262500

## Certificate of Analysis

<b>Product</b>	<b>Vitamin K1</b>	Ref. Standard:	Enterprise
	<b>(5%, Microencapsulated)</b>	Batch / Lot #	20220102
CAS # (Active) :	84-80-0	MFG Date	01/03/2022
Formula (Active):	C <sub>31</sub> H <sub>46</sub> O <sub>2</sub>	Retest Date	07/02/2023
PAT Item # :	60-6405	Batch Size	110 KG
Country of Origin :	CHINA	Pack Size	5kg/bag, 25kgs/Ctn

Analysis Contents	Specification	Methods	Results
DESCRIPTION	Yellowish, fine powder	Visual	Conforms
IDENTIFICATION	Positive	IR & UV	Positive
PARTICLE SIZE	≥ 90% Through 80 Mesh	USP	Conforms
BULK DENSITY			Not Tested
TAPPED DENSITY			Not Tested
HEAVY METAL	≤ 10 PPM	USP	< 10 PPM
ARSENIC	≤ 3 PPM	In-House	< 3 PPM
CADMIUM	≤ 0.3 PPM	In-House	< 0.3 PPM
LEAD	≤ 1 PPM	In-House	< 1 PPM
MERCURY	≤ 0.1 PPM	In-House	< 0.1 PPM
LOSS ON DRYING (%)	≤ 5.00%	USP	0.83%
ASSAY (on dried basis)	Vitamin K1, ≥ 5.00%	USP	5.02%
CARRIER	Sugar, Maltodextrin, Arabic Gum	In-House	Conforms
<b>MICROBIOLOGY</b>			
TOTAL PLATE COUNT	≤ 1,000 CFU / Gram	CP	< 1,000 CFU / Gram
YEAST & MOLD	≤ 100 CFU / Gram	CP	< 100 CFU / Gram
COLIFORMS	< 3 CFU / Gram	CP	< 3 CFU / Gram
E. COLI	Negative	CP	Negative
STAPH. AUREAUS	Negative	CP	Negative
SALMONELLA	Negative	CP	Negative
<b>CONCLUSION</b>	<b>The above product conforms to listed standard(s)</b>		

QC Department

Verified by:

Ma Jing

Analyst:

L.W.

Date:

3/15/2022

Date:

3/15/2022

Distributed by PAT Vitamins