

# OptiMSM® Certificate of Analysis

SKU NUMBERS: 20020      LOT NUMBER: 2212851      MFG DATE: 8/10/2022      EXPIRATION DATE: 8/10/2027

PRODUCT: METHYLSULFONYLMETHANE, (Dimethyl Sulfone, Methyl Sulfone, MSM, DMSO<sub>2</sub>)  
 MANUFACTURER: Bergstrom Nutrition, 1000 West 8<sup>th</sup> Street, Vancouver, WA 98660 – (360)693-1883 – Country of Origin: USA  
 EXCIPIENT: None      QUANTITY: 0% by weight

PHYSICAL DESCRIPTION: White flake

CHEMICAL ABSTRACTS REGISTRY NUMBER: 67-71-0      MOLECULAR WEIGHT: 94.13      PERCENT SULFUR: 34.1%

PHYSICOCHEMICAL ANALYSIS	METHOD	SPECIFICATION	LOT RESULT
VOLATILE PURITY:	MSM – GC/FID <sup>1, 2</sup>	>99.8%	99.9 %
ASSAY	MSM-GC/FID <sup>1</sup>	98.0 – 102.0%	99.00 %
IDENTITY	USP Method B	Pass	Pass
MELTING POINT:	USP/NF <741>	109.5°C ± 1.0°C	110.0 °C
WATER CONTENT:	USP/NF <921a>	< 0.1%	<0.1 %
DMSO CONTENT:	MSM – GC/FID <sup>1, 2</sup>	< 0.05%	<0.05 %
INDIVIDUAL IMPURITY	GC/FID <sup>1</sup>	NMT 0.05%	<0.05 %
PARTICLE SIZE: 12 <sup>3</sup>	USP/NF <786I>	NLT 98% THROUGH	98.9%
BULK DENSITY:	USP/NF <616I>	NLT 0.68 g/ml	0.69 g/ml
TAPPED DENSITY:	USP/NF <616I>	NLT 0.78 g/ml	0.85 g/ml



MICROBIOLOGICAL ANALYSIS	METHOD	SPECIFICATION	LOT RESULT
Total Aerobic Microbial Count:	USP<61>	<10cfu/g	<10 cfu/g
Total Yeast and Mold Counts:	USP<61>	<10cfu/g	<10 cfu/g
Enterobacteria:	USP<62>	Absent	Absent
Escherichia coli:	USP<62>	Absent	Absent
Salmonella:	USP<62>	Absent	Absent
Staphylococcus aureus:	USP<62>	Absent	Absent

METALS ANALYSIS	METHOD	SPECIFICATION	LOT RESULT
As (Arsenic):	EPA 200.8 - ICPMS <sup>1, 2</sup>	<0.01 ppm	<0.01 ppm
Cd (Cadmium):	EPA 200.8 - ICPMS <sup>1, 2</sup>	<0.005 ppm	<0.005 ppm
Hg (Mercury):	EPA 7471A <sup>1, 2</sup>	<0.001 ppm	<0.001 ppm
Pb (Lead):	EPA 200.8 – ICPMS <sup>1, 2</sup>	<0.01 ppm	<0.01 ppm

NOTE: 1. Third party laboratory validated method  
 2. Additional third party validation method may be used in place of listed method.  
 3. U.S. Sieve Designation

### Manufacturer Statement

The methylsulfonylmethane (MSM) used in the manufacture of this product complies with the requirements of the United States Pharmacopeia / National Formulary. The manufacturing process takes place in the USA in a facility that is in full compliance with the FDA cGMP requirements and is ISO 9001 & FSSC 22000 certified. Bergstrom Nutrition guarantees OptiMSM is non-GMO as defined by the European Union in Article 2.2 of Directive 2001/18/EC and Article 2.5 of Regulation (EC)1829/2003 and is in compliance with Regulation (EC) 1830/2003 regarding traceability and labeling of GMOs and food derived thereof. OptiMSM is Kosher certified through the Orthodox Union and Halal certified by the Islamic Food and Nutrition Council of America and is GRAS.

Prepared By:   
 Approved By: 

Date: 8/26/2022  
 Date: 8/26/2022