

# The World's Purest MSM

For more than 25 years, OptiMSM® has set the quality standard for methyl-sulfonylmethane in dietary supplements, skin care, performance nutrition, and more. We don't compromise on MSM, and neither should you. Choose OptiMSM®

OptiMSM® is purified through a proprietary multi-stage distillation process. This process removes impurities by utilizing unique boiling points to completely isolate the MSM molecules. The result delivers extremely high purity every time. Distillation also creates a product with very low moisture content, reducing the risk of microbial contamination and product degradation.

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# What is OptiMSM®?

OptiMSM® is a trademark form of methylsulfonylmethane. Both consumers and formulators highly value this branded ingredient for its consistent purity, quality, and physical characteristics. These are achieved through a precise manufacturing process that allows OptiMSM® to meet the most stringent product specifications and customer expectations.

Methylsulfonylmethane often abbreviated as MSM, is composed of 34% elemental sulfur, 26% carbon, 6% hydrogen and 34% oxygen. This molecule occurs naturally in trace amounts in vegetation and animals.

All commercially-available MSM is created through a chemical reaction that replicates the earth's natural sulfur cycle. If done correctly, this reaction yields an MSM molecule that is identical to the MSM molecule found in nature. DMSO and hydrogen peroxide are the raw ingredients of the reaction. The byproduct is water.

# Through DISTILLATION OptiMSM® can eliminate many impurities:



<b>Boiling Point</b>	
Lead	1740 °C (3164 °F)
Cadmium	765 °C (1409 °F)
Arsenic	613 °C (1135 °F)
Mercury	357 °C (674 °F)
MSM	248 °C (478 °F)
Phenol	182 °C (360 °F)
Heptane	143 °C (290 °F)
Benzene	80 °C (176 °F)

In contrast to OptiMSM®, other commercially-available MSM uses crystallization to isolate the MSM molecule. As this crystalized material cools, occlusions can develop that trap contaminants within the MSM and lead to material that may contain heavy metals, residual water, and other impurities.



and impurities



To learn how adding OptiMSM to your next product can help deliver the health benefits your customers are looking for, email **info@optimsm.com** or visit **www.optimsm.com**.

# Why Add OptiMSM®?

In addition to being distilled for purity, each production lot of OptiMSM® must meet rigorous product specifications using some of the most sensitive analytical methods available--making OptiMSM® the clear choice for MSM.

### **Purity**

- Volatile purity tests OptiMSM® for extremely low levels of volatile impurities to assure the material is free from DMSO and/or organic compounds.
- Microbial testing is performed using a pharmaceutical standard supporting compliance with the Global Food Safety Initiative.
- Heavy metals specifications and tests are a 100 times more sensitive than the USP monograph requirements to help ensure OptiMSM® meets California Proposition 65 at high doses.

### **Safety**

- OptiMSM® is generally recognized as safe (GRAS) through the FDA.
- Toxicology studies indicate the LD-50 to be greater than 17 grams per Kg bodyweight. For example, an 80 Kg person would need to consume more than one full Kg to reach such levels.
- Kosher, halal, non-GMO, gluten free, allergen free and vegan status allows safe use in populations with dietary restrictions.

### **Consistency**

- OptiMSM®'s assay test provides the strength of the raw material as required through DS cGMP and should be used when formulating, as some product SKUs include small amounts of silicon dioxide to help with flow ability.
- Proprietary Microprill and Flake formats are each created, screened, and tested to minimize characteristic physical, deviations.
- OptiMSM® is manufactured in the USA at a dedicated facility certified ISO 9001: 2015 and FSSC 22000, ensuring GFSI compliance and including an HACCP management system.

### Research

- Studies substantiate OptiMSM® benefits in: joint health, sports nutrition, skin & beauty, healthy aging and immune support.\*
- Research suggests dosing between 1 and 6 grams daily. It may be possible to receive the same benefits with lower doses if taken over longer periods of time.
- · Bergstrom Nutrition maintains a database of published MSM research studies to aid in product development.

## **The Bergstrom Advantage**

### Purity - Safety - Consistency - Research

As pioneers in the manufacturing of methylsulfonylmethane (MSM) for human nutrition, we have earned a reputation for producing the safest, purest MSM in the world. With a 25+ year manufacturing history, we provide our clients a direct link to technical expertise that is second to none. At Bergstrom, we proudly stand behind our promise of a trouble-free experience by offering you a superior product that is fully traceable, always consistent and backed by research. Crafted in the U.S.A. through our proprietary distillation process, contact us to learn more about the benefits of adding OptiMSM® to your next product.

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