

# S-Adenosyl-L-methionine (SAM)

## Product Information

CAS Number: 29908-03-0

Molecular Formula: C<sub>15</sub>H<sub>24</sub>N<sub>6</sub>O<sub>5</sub>S

Molecular Weight: 400.45

Packaging: 25kg/ DRUM

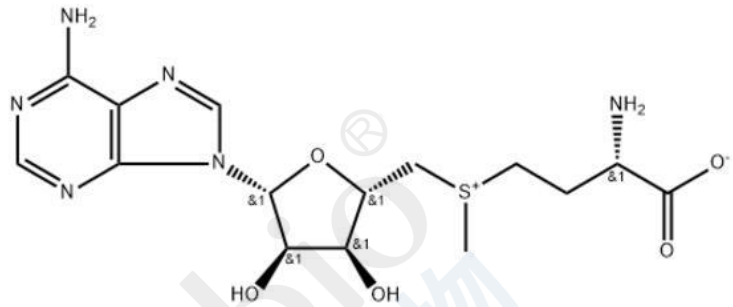
Purity: ≥ 98.0%

Heavy metals: ≤ 20ppm

Drying weight loss: ≤ 0.5%

Appearance: White or yellow crystalline powder, soluble in water

Storage: Store at -20°C and protect from moisture



## Product Introduction

S-adenosylmethionine is a significant sulphonium compound in biological systems, engaging in diverse biochemical processes. SAM is synthesized through the enzymatic reaction of methionine with ATP, catalyzed by SAM synthetase or methionine adenosyltransferase (MAT). It is ubiquitously present in human tissues and body fluids, playing pivotal roles in biochemical reactions as a methyl donor (transmethylation) and as a precursor to essential sulfhydryl compounds such as cysteine, taurine, glutathione, and coenzyme A. In the liver, SAM-e regulates hepatocyte membrane fluidity by methylating plasma membrane phospholipids and promotes the synthesis of sulfide products during detoxification, thereby reducing levels of alanine aminotransferase, aspartate aminotransferase, and bilirubin, thereby safeguarding liver function.



## Applications

Regular intake of SAM-e may confer protection against depression, liver diseases, and arthritis. Marketed as a nutritional supplement under the name SAM-e in the U.S., it is touted for its mood-enhancing, liver-protective, and joint-comforting effects. The growing popularity of nutritional supplements has led to an increased therapeutic use of SAM-e, particularly following the passage of the Nutritional Supplement Health and Education Act of 1999, which permits its over-the-counter use and distribution as a food additive, subject to FDA regulations.

Numerous studies highlight SAM-e's efficacy in treating liver diseases, mood disorders, and osteoporosis. However, due to its structural instability, the stable salt form of SAM-e has become its primary medicinal form. Despite this stabilization, SAM-e remains susceptible to degradation, prompting sellers to recommend higher doses for absorption. Commonly reported side effects include gastrointestinal discomfort, while individuals with a history of bipolar disorder are at risk of developing mania. The therapeutic dosage typically falls within the range of 800-1,600 mg daily.



**Service Hotline:** 400-021-8158

**International Market:** [www.allinno.com](http://www.allinno.com)

**Website:** [www.seebio.com/](http://www.seebio.com/) [www.seebio.cn](http://www.seebio.cn)

**E-mail:** [foodadd@seebio.cn/](mailto:foodadd@seebio.cn) [finechem@seebio.cn/](mailto:finechem@seebio.cn) [sales@seebio.cn/](mailto:sales@seebio.cn) [market@seebio.cn](mailto:market@seebio.cn)

**Address:** Building 5, No. 508 Chuanhong Road, Pudong, Shanghai 201202, P.R.China

