

N,N-Dimethylglycine sodium salt (DMG Na)



PRODUCT IN FOCUS



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INTRODUCTION

N,N-Dimethylglycine sodium salt (DMG Na) is the sodium salt form of N,N-dimethylglycine, a tertiary amino acid derivative is white to off white crystalline solid, freely soluble in water. It is commonly used in pharmaceutical, nutraceutical, and biochemical applications.

MANUFACTURE

DMG Na is produced industrially over two steps from glycine. First step involves Eschweiler–Clarke methylation of glycine using formaldehyde and formic acid under controlled condition to get N,N-dimethylglycine (free base). The second step is formation of sodium salt using sodium hydroxide in aqueous media under controlled conditions.

Synonyms	Glycine, N,N-dimethyl-, sodium salt (1:1), Taminizer D
CAS no.	18319-88-5
EINECS no.	242-206-5
Molecular formula	C ₄ H ₈ NNaO ₂
Molecular weight	125.10
Structure	

APPLICATIONS

DMG Na has several industrial, pharmaceutical, and nutritional applications due to its role as a methylated amino acid derivative and a metabolic intermediate.

Pharmaceutical Industry

Applied in drug development and biochemical formulations where methylated amino acid derivatives are required.

Nutraceuticals & Dietary Supplements

Used in dietary supplements that support:

- ❖ Energy metabolism
- ❖ Immune system function
- ❖ Oxygen utilization in the body
- ❖ Often included in sports nutrition products and metabolic support formulations.

Animal Nutrition

Added to animal feed supplements to support:

- ❖ Growth and metabolism
- ❖ Stress tolerance
- ❖ Performance in poultry, livestock, and pets.

Biochemical & Laboratory Research

- ❖ Used in metabolic and methylation pathway studies.
- ❖ Acts as a methyl group donor compound in biochemical research.

Chemical Synthesis

Serves as a building block in organic synthesis for producing:

- ❖ Specialty chemicals
- ❖ Amino acid derivatives
- ❖ Functional biochemical compounds.

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SPECIFICATIONS

Test	Unit	Specification
Appearance	-	White crystalline powder
Purity	% Area	NLT 98
pH	-	10.0-12.0
Chloride	%	NMT 0.04
Loss on drying	%	NMT 5.0
Heavy metals		
Lead (Pb)	ppm	NMT 3.0
Arsenic (As)	ppm	NMT 2.0
Cadmium (Cd)	ppm	NMT 1.0
Mercury (Hg)	ppm	NMT 0.1
Microbiological		
Total Plate Count	cfu/g	NMT 1000
Yeast & Mold	cfu/g	NMT 100
E.Coli		Absent
Salmonella		Absent

STORAGE & PRECAUTION

Store in a well-closed container away from moisture, direct light and heat.

PACKING

25 kg fiber drums

REACH Status

Not registered

ExSyn offers DMG Na on commercial scales and welcomes enquiries. No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.