



## JINING GREEN MOUNTAIN CHEMICAL CO.,LTD.

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### Technical Data Sheet

#### Trisodium Dicarboxymethyl Alaninate

CAS No.: 164462-16-2

Chemical Name:

Methylglycine N,N-diacetic acid, trisodium salt;

Alanine, N,N-bis(carboxymethyl)-, trisodium salt;

MGDA-3Na is an environmentally friendly small molecule chelating agent, similar in structure to NTA, easily biodegradable and phosphorus-free.

MGDA can replace traditional complexing agents such as organophosphorus, EDTA, DTPA, NTA within a certain range.

#### Features:

1. Stability in acidic and strongly alkaline environments.

Under acidic conditions, MGDA is more stable compared to aminocarboxylic acid chelators such as EDTA and remains effective in chelating iron ions in the pH range of 2 to 3.

Under alkaline conditions, MGDA is effective in chelating calcium without precipitation in formulations with high concentrations of sodium hydroxide. It is widely used in all kinds of washing and cleaning formulations.

2. Stability in high temperature environments.

200 degrees Celsius (even close to 300 degrees Celsius), still maintains stability.

3. MGDA can be used to prevent and remove calcium phosphate, soap scum (calcium stearate, calcium oleate), calcium oxalate and other inorganic and organic dirt.

4. MGDA is used as a stabilizer for peroxide bleaching.

MGDA can chelate iron, copper, manganese and other metal ions that catalyze the rapid decomposition of hydrogen peroxide.

It can replace the traditional aminocarboxylic acid chelating agent which is not easy to be degraded such as DTPA, EDTA, or phosphate chelating agent such as DTPMP.

**Technical Data:**

Items	MGDA solid	MGDA liquid
Content (MGDA-Na <sub>3</sub> )	≥85% or 80%	≥40%
Appearance	White to slightly yellow powder or granules	Yellow liquid
Solubility	Soluble in water	Soluble in water
pH-Value	10.0 to 12.0	10.0 to 12.0

*Specifications are subject to change without prior notice.*

**Applications:**

anti-scaling and cleaner, descaling and scale inhibitors, metal surface treatment, bleaching stabilizers, sequestering agent in textile auxiliaries, pulp and paper auxiliaries, oilfield chemicals, water treatment chemicals, agriculture, etc.

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