

FUNCTIONALITY MEETS ENVIRONMENTALLY SAFE

Biopure™ GLDA is an ideal chelating agent that is powerful, readily biodegradable, and is highly stable over a wide pH range. This effective chelating agent exhibits high performing metal binding properties, high solubility properties and functions as a perfect low eco-tox alternative to market standard chelating agents such as EDTA, NTA, Phosphates and Phosphonates. **Biopure™ GLDA** is bio-based, does not require hazardous labeling, is NTA free, and is highly pure. Additional benefits include preservative boosting and natural anti-discoloration properties.

Chelate	Strong Chelate	Readily Biodegradable	Safe for Man and Environment	Bio-Based
GLDA	✓	✓	✓	✓
EDTA	✓	×	×	×
NTA	✓	✓	×	×
Phosphates	✓	Inorganic	×	×
Phosphonates	✓	×	×	×

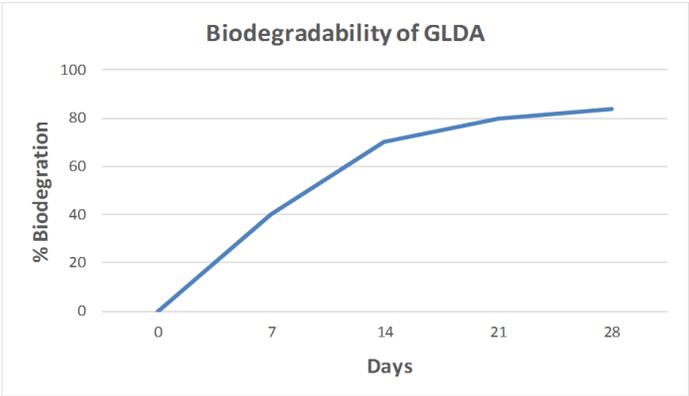
IDEAL FOR

- Hard surface cleaners
- Laundry detergents
- Industrial cleaners
- Dishwashing detergents
- Personal care products
- Wet wipes
- Textiles
- Fertilizers

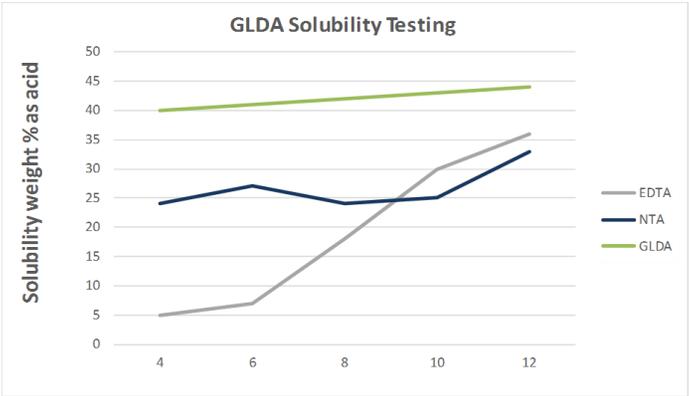


Bio-Based Chelating Agent: Biopure™ GLDA

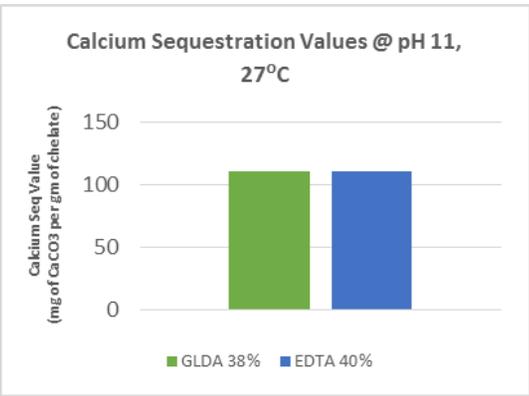
GLDA IS BIODEGRADABLE



GLDA IS SUPERIOR IN SOLUBILITY



1:1 REPLACEMENT FOR EDTA



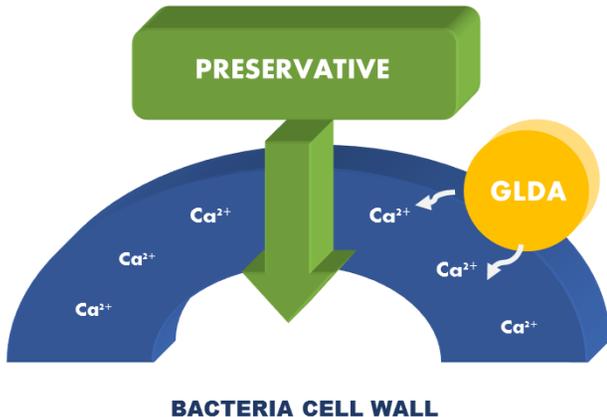
Jarchem's bio-based **Biopure™ GLDA** is the strongest readily biodegradable chelating agent.

- Ready Biodegradability Closed Bottle Test (OECD 301D) was used to show biodegradability over a course of 28 days.
- GLDA was tested to show immediate and increasing decomposition over time.

- When compared to EDTA & NTA, **Biopure™ GLDA** had the highest performance during solubility testing across a wide range of pH values (4 - 12).

- GLDA works as well as EDTA, if not better, as seen in testing for Calcium Sequestration Values at a pH of 11 and temperature of 27°C

PRESERVATIVE BOOSTER FUNCTIONS



- **Biopure™ GLDA**, like EDTA, binds to calcium ions in the cell membranes of bacteria, naturally weakening cell membranes to allow for greater efficacy of preservatives
- Exhibit better boosting effect at pH 5.0 for *E.coli* and *Ps. Aeruginosa*. At pH of 7, boosting effect works well against *Staph. Aureus*.

- In testing done to evaluate various germ counts in sterile tap water over the course of 24 hours using a select preservative, Tetrasodium EDTA, and GLDA, it was shown that **GLDA had the best effect at preventing bacteria growth.**
- Testing used an unpreserved control, 0.75% of test preservative only, 0.75% of test preservative + 0.2% of Na₄EDTA, and 0.75% of preservative mixed with GLDA.

ASK US FOR MORE INFORMATION