



Chelating Agents for Metal Ion Management

Endless Possibilities for Metal Ion Management

What are Chelates?

Chelates are molecules that form stable, ring-like complexes with metal ions. They tightly bind these ions which can prevent metal-catalysed reactions, stabilize active ingredients, and improve overall product performance. EDTA (ethylenediaminetetraacetic acid) is one of the most widely used chelating agents due to its strong affinity for metal ions and its cost-efficiency. EDTA and related chelates can be integrated into liquids, semisolids, and solid dosage forms with appropriate formulation strategies.



Liquid Applications

- ✓ Nasal Spray
- ✓ Ophthalmic Preparations
- ✓ Oral Solutions

Solid & Semi-Solid Applications

- ✓ Soft Capsules
- ✓ Topical Cremes
- ✓ Waterbased Gels

Why are Chelates used in Pharma?

Stabilization: By mitigating metal-catalyzed degradation, chelates enhance stability and solubility of active ingredients and

Preservation of formulations: Chelating agents enhance the effectiveness of antioxidants and preservatives by removing metal catalysts that drive degradation. This leads to enhanced shelf-life.

Control over metal-related impurities: Chelates can help minimize metal contamination, improving safety profiles.

Nouryon

Nouryon manufactures a range of products for applications in the pharmaceutical industry. It works according to the highest international standards and continuously carries out product testing to ensure these standards are met.

Nouryon offers a wide range of chelates that can be used in the pharmaceutical industry. Extensive regulatory and industry use supports EDTA's reliability for stabilization and impurity control in pharma applications. Here are their key products for pharmaceutical applications:

	Molecular Formular	Typical Applications	Compliance Standards
Dissolvine® Na2-P	Na ₂ H ₂ -EDTA·2H ₂ O	e.g. liquid applications	USP, EP
Ferrazone®	FeNa-EDTA·3H ₂ O	e.g. iron fortification	BP
Solvitar™	CaNa ₂ -EDTA·2H ₂ O	e.g. semi-solid applications	USP, EP

By utilizing these specialized chelates provided by Biesterfeld, pharmaceutical manufacturers can ensure their products meet high standards while effectively addressing customer needs, contributing to improved product quality and effectiveness.

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