



Technical Data Sheet

VERSENE™ NA Disodium EDTA Chelating Agent

Product Availability

- North America
- Europe
- Latin America
- Pacific
- India
- Middle East and Africa

Applications

- Food and beverage
- Pharmaceuticals

Active Ingredient Name

Disodium ethylenediaminetetraacetate dihydrate

CAS Number

6381-92-6

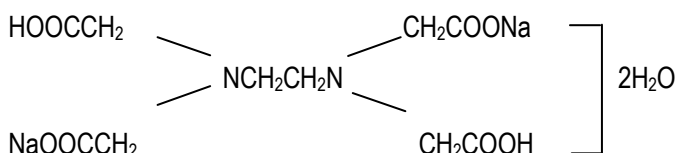
For TSCA purposes, reference CAS No. 139-33-3 for anhydrous Na₂EDTA.

Chemical Formula

C₁₀H₁₄N₂O₈Na₂ • 2H₂O or

(NaOOCCH₂)(HOOCCH₂) NCH₂CH₂N(CH₂COOH)(CH₂COONa) • 2H₂O

Chemical Structure



Molecular Weight

372.24

Other Names

Na₂H₂EDTA • 2H₂O, Disodium EDTA FCC, Edetate Disodium USP

Description

VERSENE™ NA Disodium EDTA Chelating Agent is a food and pharmaceutical grade product which meets the requirements of the Food Chemicals Codex and U.S. Pharmacopeia XXII. VERSENE™ NA Chelating Agent is a partially neutralized salt of EDTA, in dry form, and is suitable for direct food applications. It is well suited for applications calling for neutral pH or mildly acidic conditions common to most food and pharmaceutical products. The principal function of VERSENE™ NA Chelating Agent is to chemically bind and render inactive those trace metals having an adverse impact on the color, flavor, clarity, shelf life, and other important characteristics of foods and pharmaceuticals. Literature references indicate synergy in antimicrobial activity. The applications and amount of disodium EDTA allowed to be used in food products is specifically regulated by the US FDA. All such uses must conform to the regulations. Disodium EDTA is considered a food preservative in the US FDA regulations. VERSENE™ NA disodium EDTA is Kosher and Pareve certified for Passover.

Typical Properties†

Calcium Chelation Value	267 mg as CaCO ₃ per gram of VERSENE™ NA Chelating Agent
Equivalent Chelation Capacity	One gram of VERSENE™ NA has the equivalent chelation capacity of 2.69 mmoles of EDTA
Metal Chelation Capacity	Parts chelant per part metal (w/w)
Ca	9.9 (use levels are regulated)
Mg	16.3 (use levels are regulated)
Fe	7.1 (use levels are regulated)
Cu	6.2 (use levels are regulated)
Mn	7.2 (use levels are regulated)
% Assay	99.0 wt% as Na ₂ H ₂ EDTA • 2H ₂ O 89.4 wt% as Na ₂ H ₂ EDTA 77.7 wt% as H ₄ EDTA
Appearance	White to off-white powder
Bulk Density	980 kg/m ³ or 61 lb/cu ft
pH	4.3-4.7 (1 wt% solution) 4.0-6.0 (5 wt% solution)
Water Solubility	5-7 wt% at 25°C/77°F

† The data provided for these properties are typical values, intended only as guides, and should not be construed as sales specifications.

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