

EDTA anhydrous

Meets USP-NF, EP and BP testing specification

Product Code: TC115M

Product Description :

Molecular weight: 292.24

Molecular formula: $C_{10}H_{16}N_2O_8$

CAS No.: 60-00-4

Synonym: Edetic acid

Quality Control

Appearance (USP)

White crystalline powder

Appearance (EP, BP)

White or almost white, crystalline powder or colorless crystals

Solubility (USP)

Soluble in solutions of alkali hydroxides; very slightly soluble in water.

Solubility (EP, BP)

Practically insoluble in water and in ethanol (96%). It dissolves in dilute solutions of alkali hydroxides

Identification A : FTIR (USP, EP, BP)

Matches with the standard pattern

Identification B (EP, BP)

The solution becomes yellowish

Identification C (EP, BP)

No precipitate is formed

Appearance of solution (EP, BP)

Dissolve 5 gm in 20 mL of dilute sodium hydroxide solution R and dilute to 100 mL with water R, solution is clear and colourless

Impurity A : system suitability : Resolution : HPLC (EP, BP)

≥ 7.0 between the peaks due to the iron complex of impurity A and the iron complex of edetic acid

Impurity A (EP, BP)

$\leq 0.10\%$ (Not more than the area of the corresponding peak in the chromatogram obtained with the reference solution)

Chlorides (EP, BP)

$\leq 0.02\%$

Iron (USP)

$\leq 0.0050\%$

Disclaimer :

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Iron (EP, BP)

$\leq 0.0080\%$

Residue on ignition (USP)

$\leq 0.20\%$

Limit of nitrilotriacetic acid 1: system suitability :

Resolution : HPLC (USP)

≥ 3.0 between the nitrilotriacetic acid and copper peaks

Limit of nitrilotriacetic acid 2: system suitability :

Relative standard deviation : HPLC (USP)

$\leq 2.0\%$

Limit of nitrilotriacetic acid 3: HPLC (USP)

$\leq 0.30\%$ (The response of the nitrilotriacetic acid peak of the sample solution does not exceed the difference between the nitrilotriacetic acid peak responses from the standard solution and the sample solution)

Sulfated ash (EP, BP)

$\leq 0.20\%$

Assay : Zinc sulfate titration (EP, BP)

98.00 - 101.00%

Assay : EDTA Titration (USP)

98.00 - 100.50%

Storage and Shelf Life:

Store below 30°C away from bright light.

Shelf life is 48 months.

Use before expiry date given on the product label.

Revision : 03/2023