71403, 71404, 71401, 71402 Sodium citrate tribasic dihydrate (Citric acid trisodium salt dehydrate, Trisodium citrate dihydrate)

CAS number: 6132-04-3

Product Description:
Appearance: Clear colorless to very faint yellow liquid
Molecular formula: C₆H₇Na₃O₇•2H₂O
Formula weight: 294.10 g/mol
Solubility: 0.1 M in H₂O, 20 °C, complete, colorless
pH: 7.5-9.0 (0.1 M in H₂O, 25 °C)
pKᵦ: 3.138, 4.76, 6.40
Melting point: 150 °C (anhydrous)
Density: 1.857

71403 BioChemika for analytical purposes
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71401 BioChemika Ultra for Luminescence
71402 BioChemika Ultra for molecular biology

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Applications:
Citric acid is a key metabolic intermediate. Citrate is the starting point of the tricarboxylic acid cycle. Its concentration also coordinates several other metabolic pathways. Citric acid can form complexes with various cations, particularly with iron and calcium. In animals, citric acid improves the utilization of nutritional calcium. Citric acid is produced commercially by fermentation of carbohydrates derived from corn starch and from beet molasses. Sodium citrate has been used as an anticoagulant for the collection of blood. It is slightly dejectory. Used in the photography as a supplement in galvanic solutions, as buffer in diverse application (see als the crystallisation kit) and for marking tensides.

Preparation Instructions:
One gram of sodium citrate dissolves in 1.3 ml of water at 25 °C and in 0.6 ml of boiling water. Bad soluble in alcohol. The pH of a 0.1 N solution is approximately 8.

Storage/Stability:
The use of citrate buffers (pH 3-5) in numerous applications indicates excellent stability at room temperature. Dilute solutions of citric acid (non-sterile) may ferment if left at room temperature. Non-sterile solutions should be stable for months stored at 2-8 °C.

Precautions and Disclaimer:
For Laboratory Use Only. Not for drug, household or other uses.

References:
1. The Merck Index, 12th ed., Entry# 2387.
4. The Merck Index, 12th ed., Entry# 8746.
6. Beilstein EIV 3, 1274 ï DAB 9, 1061