



**Sodium Citrate, Dihydrate,
Granular, U.S.P.
Multi-Compendial**

Product No. 3647
Specifications current as of:
Jun 8 2011

TEST	SPECIFICATION
GMP Manufactured Product	
Meets U.S.P. Requirements	
Identification A	Passes Test
Identification B	Passes Test
Alkalinity	Passes Test
Water (H ₂ O)	10.0 - 13.0 %
Tartrate	Passes Test
Heavy Metals (as Pb)	max. 0.001 %
Assay (C ₆ H ₅ Na ₃ O ₇) (calculated on the anhydrous basis)	99.0 - 100.5 %
Meets BP/Ph.Eur. Chemical Specifications	
Identification A	Passes Test
Identification B	Passes Test
Appearance of Solution	Passes Test
Acidity or Alkalinity	Passes Test
Readily Carbonizable Substances	Passes Test
Chloride (Cl)	max. 50 ppm
Oxalate (C ₂ O ₄)	max. 300 ppm
Sulfate (SO ₄)	max. 150 ppm
Heavy Metals (as Pb)	max. 10 ppm
Water (H ₂ O)	11.0 - 13.0 %
Assay (C ₆ H ₅ Na ₃ O ₇) (calculated on the anhydrous basis)	99.0 - 101.0 %
Endotoxin Concentration (EU/g)	max. 2.5
Meets JP Chemical Specifications	
Assay (C ₆ H ₅ Na ₃ O ₇) (calculated on the anhydrous basis)	99.0 - 101.0 %
pH (1 in 20)	7.5 - 8.5
Clarity and Color of Solution	Passes Test
Chloride (Cl)	max. 0.015 %

Identification	Passes Test
Sulfate (SO ₄)	max. 0.048 %
Heavy Metals (as Pb)	max. 10 ppm
Arsenic (As)	max. 2 ppm
Tartrate	Passes Test
Oxalate (C ₂ O ₄)	Passes Test
Readily Carbonizable Substances	Passes Test
Loss on Drying at 180°C	10.0 - 13.0 %

No Class 1,2,3 or other solvents are used or produced in the manufacturing or purification of the product.

Bulk Pharmaceutical Chemical

CAUTION: For manufacturing, processing or repacking.

For a Certificate of Lot Analysis, visit www.avantormaterials.com.