



CERTIFICATE OF ANALYSIS

20 Martin Ross Avenue, North York, ON, M3J 2K8, CANADA
Tel: (416) 665-9696, Fax: (416) 665-4439
Email: orders.trc@lgcgroup.com Website: www.trc-canada.com

1. Identification

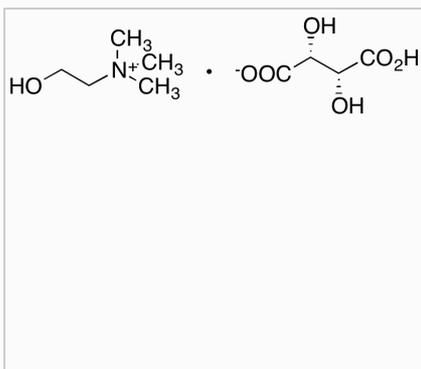
Catalogue Number: C432640

CAS Number: 87-67-2

Product: Choline Bitartrate

Synonym: Choline Tartrate; Choline Hydrogen Tartrate; Choline Tartrate (1:1); 2-Hydroxy-N,N,N-trimethyl-Ethanaminium Salt with (2R,3R)-2,3-dihydroxybutanedioic acid (1:1); , 2-Hydroxy-N,N,N-trimethylethanaminium Salt with [R-(R*,R*)]-2,3-dihydroxybutanedioic Acid (1:1); (2R,3R)-2,3-Dihydroxybutanedioic Acid Ion(1-) 2-Hydroxy-N,N,N-trimethylethanaminium; [R-(R*,R*)]-2,3-Dihydroxybutanedioic Acid Ion(1-), 2-Hydroxy-N,N,N-trimethylethanaminium; Tartaric acid Ion(1-) Choline; (2-Hydroxyethyl)trimethylammoniu

Structure:



Molecular Formula:

C₉H₁₉NO₇

Molecular weight:

253.25

Source of Product:

N/A

Solubility:

DMSO (Slightly), Methanol (Slightly), Water (Sparingly)

Lot Number: 2022-CPO-071

Purity: 98%

Shipping Condition: This Product Is Stable To Be Shipped At Room Temperature

Storage Condition: 20°C

2. Warning

Warning 1:

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	White to Off-White Solid	White to Off-White Solid
NMR	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 42.94, %H: 7.79, %N: 5.58
MS	Conforms to Structure	Conforms
Specific Rotation	Report Result	+14.7° (c = 0.2, Water)
HPLC Purity	Report Result	100.00% (ELSD)

Additional Information: N/A

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of ± 2%. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

Reviewed By

Nicole Yip



Reviewed By

Toni Rantanen



**C of A Approved
By**

Chanell Chu



Test Date

12/15/2022

Retest Date

12/13/2026