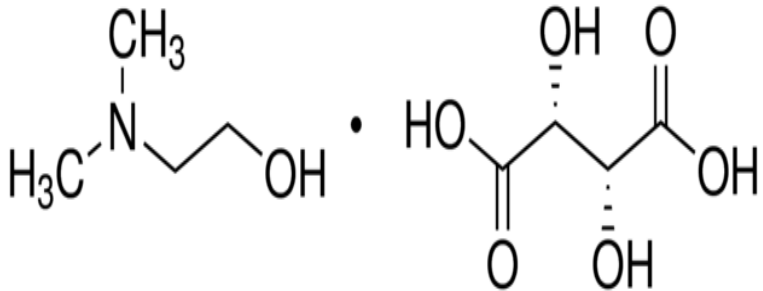


Certificate of Analysis

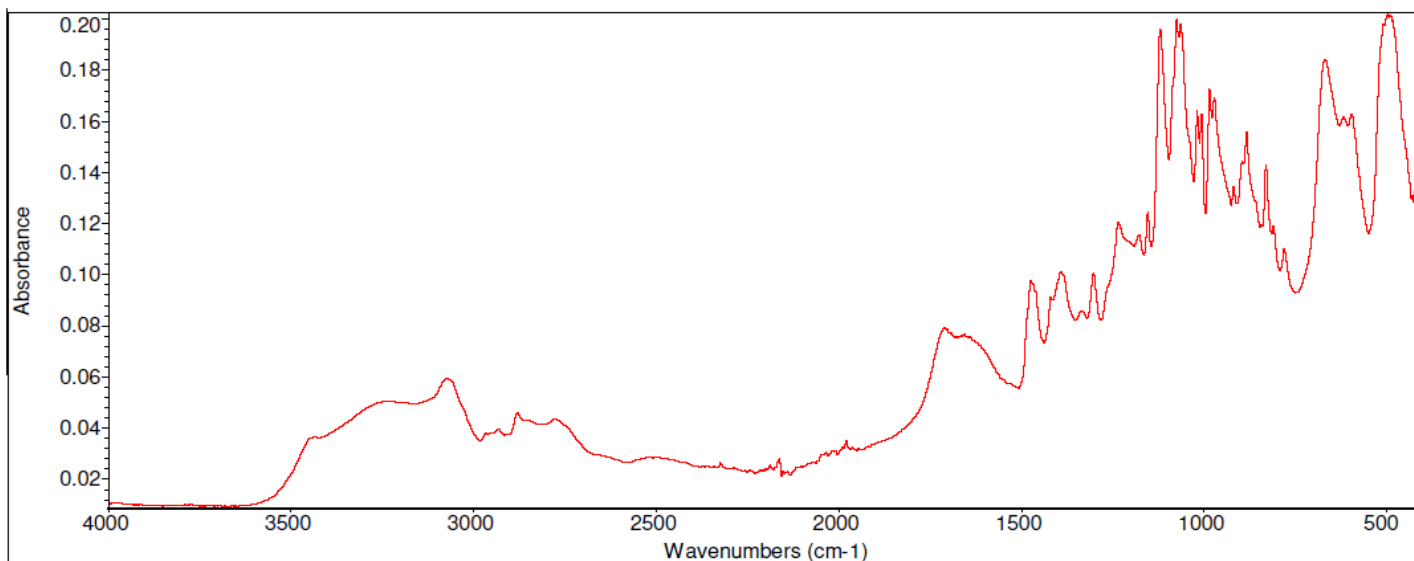
Product Name	DMAE L-Bitartrate (Dimethylaminoethanol Bitartrate)	
CAS	5988-51-2	
Batch Number	DMEGW10817	
Production Date	03/27/2017	
Validation Method	FTIR, HPLC	
Specification	Standard	

Analysis	Specification	Result	Method
Appearance	Small Crystal Type Granules	Complies	Visual
Odor	Sweet	Complies	Organoleptic
Taste	Sweet	Complies	Organoleptic
Identification	Spectrum	Conforms	FTIR
Specification	(1)Molecular Weight (2)Structure	(1) 239.22 g/mol (2) C ₄ H ₁₁ NO C ₄ H ₆ O ₆	(1) LC/MS (2) P-NMR
Assay	≥99.0%	99%	HPLC
Conclusion	Product complies to specifications		

ThermoFisher
SCIENTIFIC

Thu Aug 31 13:53:44 2017 (C

DMAE L-Bitartrate DMEGW10817



Number of sample scans: 64
 Number of background scans: 64
 Resolution: 4.000
 Sample gain: 4.0
 Optical velocity: 0.4747
 Aperture: 100.00

Spectrum: DMAE L-Bitartrate DMEGW10817

Region: 3999.71-401.13

Search type: Correlation

Hit List:

Index	Match	Compound name	Library
439	98.38	DMAE L-Bitartrate DMEGW10916	HR ATR
142	98.32	DMAE L-Bitartrate (Pure Bulk) DMEPBK1115	HR ATR
440	98.29	DMAE L-Bitartrate DMEGW10916	HR ATR
138	98.17	DMAE L-Bitartrate DMEGW11115	HR ATR