



**Specification for Choline Chloride, USP, Dietary Supplement
bioCERTIFIED (TM) (C9040)**

Item Number	C9040
Item	Choline Chloride, USP, Dietary Supplement bioCERTIFIED (TM)
CAS Number	67-48-1
Molecular Formula	C ₅ H ₁₄ ClNO
Molecular Weight	139.62
MDL Number	
Synonyms	(2-Hydroxyethyl)trimethylammonium Chloride

Test	Specification	
	Min	Max
APPEARANCE		
ASSAY (ANHYDROUS BASIS):		
CONTENT OF CHOLINE CHLORIDE	97.0	100.5 %
CONTENT OF CHOLINE	72.2	74.7 %
CONTENT OF CHLORIDE	24.8	25.8 %
pH	4.0	7.0
ARSENIC		2 ppm
LEAD		0.3 ppm
WATER DETERMINATION		0.5 %
RESIDUE ON IGNITION		0.05 %
LIMIT OF TOTAL AMINES		10 ?g/g
RELATED COMPOUNDS:		
CHOLINE RELATED COMPOUND A.		0.1 %
ANY UNSPECIFIED IMPURITY		0.1 %
TOTAL IMPURITIES		0.5 %
1,4-DIOXANE		10 ?g/g
MICROBIAL LIMITS:		
TAMC		1000 cfu/g
TYMC		100 cfu/g
BET		10 IU/g
ELEMENTAL IMPURITIES	AS REPORTED	
IDENTIFICATION A	SPECTRUM MATCHES REFERENCE	
IDENTIFICATION B	POSITIVE FOR CHLORIDE	

Test	Specification	
	Min	Max
IDENTIFICATION C	RETENTION TIME CORRESPONDS TO STANDARD	
EXPIRATION DATE		
DATE OF MANUFACTURE		
MONOGRAPH EDITION		
RESIDUAL SOLVENTS (USP)	AS REPORTED	

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