



Specification

Concerning Product:	
Article number	532434V01
Trade name / designation / denomination	Vitamin B1 Mononitrat, Food Grade (Thiamin Mononitrat)
CAS number	532-43-4
Other names / synonyms	•2-[3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-4-methyl-5-thiazol-3-iumyl]ethanol nitrate; •Thiamine mononitrate; •Vitamin B1 mononitrate; •thiamine nitrate;
EC number	208-537-4
Customs tariff number / CN code / TARIC	29362200
Molecular weight [g / mol]	327.35948
Formula	C ₁₂ H ₁₇ N ₅ O ₄ S

Parameter	Test Method	Specification	Unit
Organoleptic test			
Appearance of solution	EP	Clear, not more intense than Y7	
Appearance		White crystals or crystalline powder	
Physical parameter			
Loss on drying	USP	≤ 1,0	%
pH value	EP	6,8 – 7,5	
Identity			
Assay	USP	on dry basis 98,0 – 102,0	%
Identification	USP	Color reaction: A brown ring forms at the junction of the two liquids	
Identification	USP	Precipitate reaction: A white precipitate results from treatment with mercuric chloride, and a red-brown precipitate results from treatment with iodine, treatment with mercuric-potassium iodide and trinitrophenol also causes precipitates to form	
Identification	USP	Precipitate reaction: The color of the solution changes to brown and, on standing, a precipitate of lead sulfide forms	
Identification	USP	Reaction of fluorescence: The air-liquid meniscus shows a vivid blue fluorescence which disappears when the mixture is slightly acidified and reappears when it is again made alkaline	

Impurities			
Residue on ignition	USP	≤ 0,1	%
Related substances	EP	here related compounds: ≤ 1,0	% [w/w]
Related substances	EP	Impurity A: ≤ 0,15	% [w/w]
Related substances	EP	Impurity B: ≤ 0,6	% [w/w]
Related substances	EP	Impurity C: ≤ 0,4	% [w/w]
Related substances	EP	Total impurities ≤ 1,0	% [w/w]
Related substances	EP	Unspecified impurities ≤ 0,1	% [w/w]
Residual Solvents			
Residual solvents		Methanol: ≤ 0,3	%
Elemental Impurities			
Arsenic (As)		≤ 0,5	mg/kg
Cadmium (Cd)		≤ 0,5	mg/kg
Chlorides (Cl)	USP	≤ 0,06	%
Mercury (Hg)		≤ 0,1	ppm
Lead (Pb)		≤ 0,5	mg/kg
Microbiological data			
Aerobic microorganisms		Total Aerobic Microbial Count: ≤ 100	CFU/g
Escherichia Coli.		Negative/g	
Salmonella		Negative/10g	
Staphylococcus Aureus		Negative/g	
Yeast and Mould		Total Yeasts and Moulds Count: ≤ 10	CFU/g

Supplemental information:

Shelf life: 4 years

Note: The material meets all requirements of the valid compendia of BP, EP, USP and FCC when tested accordingly.

Storage conditions: Preserve in tight, non-metallic containers, protected from light.

Regional origin: China

Chemische Werke Hommel GmbH & Co.KG

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Waltrop, 13. May. 2025

LF-Basis: (2024-08-27)

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