



## Specification for Thiamine Mononitrate

### Compendial analysis

Analytical item	USP	
Appearance / Description	White crystals or crystalline powder, usually having a slight, characteristic odor.	
Identification	<b>A: Color reaction</b> <i>A brown ring forms at the junction of the two liquids</i>	
	<b>B: Precipitate reaction</b> <i>The color of the solution changes to brown and, on standing, a precipitate of lead sulfide forms</i>	
	<b>C: Precipitate reaction</b> <i>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</i>	
	<b>D: Reaction of fluorescence</b> <i>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</i>	
Test	pH	6.0 ~ 7.5
	Loss on drying	≤1.0%
	Residue on ignition	≤0.2%
	Chloride	≤0.06%
	Chromatographic purity (Related compounds)	≤1.0%
	Residual solvent	Methanol ≤0.3%
	Related substances	≤0.05%



Analytical item		USP
Test	- Impurity A	≤0.15%
	- Impurity B	≤0.6%
	- Impurity C	≤0.4%
	- Unspecified impurity	≤0.10%
	- Total impurities	≤1.0%
	Heavy metals	
	Lead	≤0.5 mg/kg
	Cadmium	≤0.5 mg/kg
	Arsenic	≤0.5 mg/kg
	Mercury	≤0.1 mg/kg
	Microbials	
	Total Aerobic Microbial Count	≤100 cfu/g
	Total Yeasts and Moulds Count	≤10 cfu/g
	E.Coli	Negative
	Salmonella	Negative
S.Aureus	Negative	

**Additional information:**

Country of origin: China

Retest period: 48 months (4 years)

Standard packaging: 25 kg net per fiber drum or carton with 2-layer PE inner bag

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

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