



Specification for Thiamine Hydrochloride Food Grade

Test Item	Specification	Method
Description	White crystals or crystalline powder	Visual
Identification		
Infrared absorption	Consistent with the reference IR spectra	USP
Chloride	A white curdy precipitate is formed with silver nitrate, the precipitate is insoluble in nitric acid but dissolves readily in ammonia	USP
Appearance of solution	Clear, not more intense than Y ₇ or GY ₇	EP
pH	2.7 ~ 3.3	USP
Water	NMT 5.0%	USP
Sulphates	NMT 0.03%	EP
Residue on ignition	NMT 0.1%	USP
Absorbance of solution	NMT 0.025	USP
Limit of nitrate	No brown ring is produced at the junction of the two layers	USP
Related substances (reporting threshold: 0.05%)		
- Impurity B	NMT 0.3%	
- Impurity A, C	NMT 0.15%	EP
- Unspecified impurities	NMT 0.10%	
- Total impurities	NMT 0.5%	
Related compounds	NMT 1.0%	USP
Residual solvent		
Methanol	NMT 0.3%	GC, in-house
Ethanol	NMT 0.5%	
Assay (on anhydrous basis)	98.0% ~ 102.0%	USP
Heavy metals		
Lead	NMT 0.5 mg/kg	AAS, in-house
Cadmium	NMT 0.5 mg/kg	AAS, in-house
Arsenic	NMT 0.5 mg/kg	AAS, in-house
Mercury	NMT 0.1 mg/kg	AAS, in-house
Microbials		
Total Aerobic Microbial Count	NMT 100 cfu/g	ChP
Total Yeasts and Moulds Count	NMT 10 cfu/g	ChP
E. Coli	Negative	ChP
Salmonella	Negative	ChP
S. Aureus	Negative	ChP



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

Additional information:

Country of origin: China

Retest period: 36 months (3 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.

Last update: Jan 3, 2020

Approved by: Zhang Ping

Designation: QA Manager

Signature:

