

Vitamin B1 (Thiamine)

Water-soluble vitamin – Mononitrate / HCL

Product Description

Thiamine Mononitrate and Thiamine Hydrochloride (Vitamin B1) are used in vitamin supplements, parenteral nutrition and fortified food products. Available to BP/USP standards.

Certificate of Analysis

HSN Code: 2936.21

CAS Number: Mononitrate: 532-43-4 / HCL: 57-86-6 Classification: Pharmaceutical API / Nutraceutical

Parameter	Specification	Test Method
Appearance	White crystalline powder	Visual
Assay	99.0–101.0%	HPLC
Identification	Conforms to reference standard	IR
Melting Point (Mononitrate)	195–200°C	USP <741>
Melting Point (HCl)	248°C (decomp.)	USP <741>
Loss on Drying (Mononitrate)	"d 1 . 0 %	USP <731>
Loss on Drying (HCl)	"d 5 . 0 %	USP <731>
pH (2% aqueous)	2.7–3.4	USP <791>
Heavy Metals	"d 2 0 p p m	USP <231>

Physical Properties

Appearance: White crystalline powder

Molecular Formula: Mononitrate: $C_4H_5N_4O_2S$ / HCl: $C_4H_5ClN_4OS \cdot HCl$

Molecular Weight: Mononitrate: 327.36 g/mol / HCl: 337.27 g/mol

Solubility: Freely soluble in water; slightly soluble in ethanol

Melting Point: Mononitrate: 195–200°C / HCl: 248°C

Packing: 25 kg HDPE drums with inner polyethylene liner; 1 kg, 5 kg aluminium foil pouches

Storage: Store in a cool, dry, well-ventilated area away from light and moisture. Below 25°C.

Safety & Handling

PPE: Gloves, safety goggles, dust mask, lab coat

Hazards:

- Mildly irritating to eyes
- Avoid dust inhalation