

Pyridoxine Hydrochloride

Human Nutrition

BASF

The Chemical Company

Chemical names

Vitamin B₆ hydrochloride, pyridoxol hydrochloride

CAS No.	58-56-0
EINECS No.	200-386-2

Product number

10079753	USP, kosher
10233088	BP/EP, kosher

Description

White or almost white, crystalline, odorless powder with a sour taste. It melts at approximately 206°C with decomposition.

Solubility

Readily soluble in water (approx. 25 g/100 ml of water at 25°C), somewhat soluble in ethanol and virtually insoluble in ether, chloroform and acetone.

Monographs

The product complies with the current "Pyridoxine Hydrochloride" Ph.Eur., the "Pyridoxine Hydrochloride" USP and the "Pyridoxine Hydrochloride" FCC monographs.

A grade complying with the requirements of the current "Pyridoxol Hydrochloride" Ph.Jap. monograph may be supplied upon request.

Particle-size distribution

Min. 95% smaller than 150 µm (100 mesh USP)



C₈H₁₂NO₃Cl

Molar mass 205.6 g/mol

Specification

Assay:	98.0-102.0% (USP) 99.0-101.0% (Ph.Eur.)
pH value (5% in water):	2.4-3.0
Loss on drying:	max. 0.2% (3 h, 105°C)
Sulphated ash:	max. 0.1%
Lead (FCC):	max. 2 mg/kg
Heavy metals:	20 mg/kg
Chloride (in the dry substance, USP):	conforms
Organic volatile impurities (USP):	conforms
Clarity of the solution (5% in water):	conforms
Color of the solution (5% in water):	conforms
Related substances (TLC):	conforms

Unless otherwise stated, the methods of analysis can be found in the Ph.Eur.

Stabilization/Stability

Stored in the unopened original packaging at room temperature (max. 25°C), the USP quality is stable for at least 48 months, the BP/EP quality for at least 42 months. They are quite stable in dry mixtures and solutions.

Furthermore, the product is stable to heat, acids and alkalis. The compound is only dissociated when in dilute neutral or alkaline solutions and exposed to light. Solutions intended to be heat-sterilized should therefore have a pH of less than 6.

Vitamin B₆ should not be used in conjunction with iron preparations or other iron-containing ingredients because it forms a colored Fe-complex.

Standard packaging

5 and 25 kg.

Please see appendix I for further information.

Storage

The product should be stored in the tightly sealed original packaging at a temperature below 25°C, in a dark, dry place. It should not be stored or transported along with metals.

Applications

Dietary supplements:

Pyridoxine hydrochloride can be used in almost all dosage forms (mono-preparations, B-complex as well as multivitamin formulae in the form of capsules, tablets, sugar-coated tablets, effervescent tablets, granules, syrups, solutions etc.).

Food products:

It is added to a large number of food products such as flour, bread, baked goods, pasta, breakfast cereal, dietetic products for weight reduction and food products for babies and small children. In conjunction with other vitamins, it is also used for the fortification of food products such as beverages (multivitamin juices, instant drink powders, isotonic beverages etc.), confectionery and dairy products.

Note

Pyridoxine hydrochloride must be handled in accordance with the Safety Data Sheet.

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.
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