

# Pyridoxine Hydrochloride

Human Nutrition

**BASF**  
The Chemical Company

## Chemical names

Vitamin B<sub>6</sub> hydrochloride, pyridoxol hydrochloride

<b>CAS No.</b>	58-56-0
<b>EINECS No.</b>	200-386-2

## Product number

10228713                      kosher

## Description

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

## Solubility

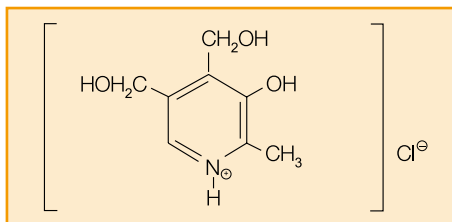
Readily soluble in water (approx. 25 g/100 ml of water at 25°C), somewhat soluble in ethanol and virtually insoluble in ether, chloroform and acetone.

## Monographs

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

## Particle-size distribution

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



**C<sub>8</sub>H<sub>12</sub>NO<sub>3</sub>Cl**                      **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. 0.5% (3 h, 105°C)
Sulphated ash:	max. 0.1%
Lead (FCC):	max. 2 mg/kg
Heavy metals:	max. 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 product is stable for at least 48 months. It is 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 B<sub>6</sub> should not be used in conjunction with iron preparations or other iron-containing ingredients because it forms a colored Fe-complex.

### **Standard packaging**

10 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.

October 2005