

TESTS	SPECIFICATIONS	ANALYTICAL METHOD REFERENCE
Appearance	Creamy to light brown powder	Visual
Identification (IR)	Spectrum comparable with the reference standard	USP <197A>
Water content (K.F.)	≤ 8.0 %	USP <921> Method Ia (Reagents for aldehydes and ketones)
Glucosamine assay on d.b. (HPLC)	34 – 46 %	GN QT-005
5-Methyltetrahydrofolic acid assay on d.b. (HPLC)	54 – 59 %	GN QT-001
Related substances (HPLC):		GN QT-002
- 4-Aminobenzoylglutamic acid (ABGA)	≤ 0.3 %	
- 4 α -Hydroxy-5-methyltetrahydrofolic acid (HOMeTHFA)	≤ 1.0 %	
- (6S)-Pyrazino-s-triazine derivate [(6S)-Mefox]	≤ 0.3 %	
- 5-Methyltetrahydropteroic acid (MeTHPA)	≤ 0.3 %	
- Any other individual impurity	≤ 1.0 %	
- Total impurities	≤ 2.5 %	
Lead	≤ 0.5 ppm	USP <233> / Ph.Eur. 2.2.57 or 2.2.58
Cadmium	≤ 0.5 ppm	USP <233> / Ph.Eur. 2.2.57 or 2.2.58
Mercury	≤ 0.1 ppm	USP <233> / Ph.Eur. 2.2.58
Arsenic	≤ 1.5 ppm	USP <233> / Ph.Eur. 2.2.57 or 2.2.58
Boron	≤ 10 ppm	USP <233> / Ph.Eur. 2.2.57 or 2.2.58
Diastereoisomeric purity (HPLC): (6S)- 5-Methyltetrahydrofolic acid	≥ 99.0 %	GN QT-003
Microbial limits:		
- Total viable aerobic count	≤ 10 ² CFU/g	USP <2021>
- Total combined yeasts & molds	≤ 10 ² CFU/g	USP <2021>
- E. coli	Absent / 10 g	USP <2022>
Packing:	LDPE bags put inside of aluminum compound foil bags sealed under vacuum.	
Packing size:	0.1 kg, 0.5 kg, 1 Kg, 5 Kg	
Re-testing period:	24 months when stored below 25 °C	

Certificate of Analysis : Pyridoxal 5-Phosphate (P5P)

Certificate of Analysis

Product	Pyridoxal 5-Phosphate (P5P)
CCL Product Code	P22125

Batch Number	C042005807
Date of Manufacture	16/05/2020
Re-Test Date	15/05/2023
Source	Vitamin B6 (Oxazole & n-Propyl Doxepin)
CAS No	41468-25-1
Molecular Formula	C ₈ H ₁₀ NO ₆ P.H ₂ O
EEC No	200-208-3
Country of Origin	China
Country of Manufacture	China
Suitable for Vegetarians	Yes
Suitable for Vegans	Yes

Test	Specification	Result
Appearance	Powder	Conforms
Colour	White to Pale-Yellow	Conforms
Aroma	Characteristic	Conforms
Flavour	Characteristic	Conforms
Identification	Positive	Conforms

Assay (as Dried Substance) Pyridoxine	99.0 % - 101.0 % Max 0.05%	100.2% Not Detected
Sieve Analysis % Passed	~100% Pass 30 Mesh	Conforms
Water Content K.F. % ww)	Max 10.0%	8.7%
pH	2.6 – 3.0	2.8

Microbiological Limits

Total Viable Count	Max 1,000cfu/g	<100cfu/g
Yeasts & Moulds	Max 100cfu/g	<10cfu/g
E. Coli	Negative/10g	Negative
Salmonella	Negative/25g	Negative

Heavy Metal Limits

Total Heavy metals	Max 10ppm	<10ppm
Lead (Pb)	Max 3ppm	Not Detected
Cadmium (Cd)	Max 1ppm	Not Detected
Mercury (Hg)	Max 0.1ppm	Not Detected
Arsenic (As)	Max 1ppm	0.02ppm

GMO Status	Non-GMO	Non-GMO
Irradiation Status	Non-Irradiated	Non-Irradiated
TSE/BSE Status	TSE/BSE Free	TSE/BSE Free

This material conforms to the USP Standard.

This material is to be stored in a tightly sealed bag/container and to be kept in a cool place away from moisture and direct sunlight.

Please note that surveillance testing may mean that not all the parameters stated on this specification are tested for every batch.

We confirm that the information above is sourced from the original manufacturers/suppliers Batch Certificate of Analysis.

The specifications detailed in this COA conform with Version 11 of our Technical Dossier for Pyridoxal 5-Phosphate (P5P).
To be used as per local legislation.

Product Specification Iron Bisglycinate 15.7% Soluble

Product Specification

Product Name	Iron Bisglycinate 15.7% Soluble
Product Code	HB52050
Specification Version	3
Effective Date	23-Jul-19
Parameter	Specification
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Product Information	
Description	Food grade
Composition	Ferrous sulphate (hydrate), Glycine (E640)
Formula	$C_4H_{10}O_8N_2FeS^+ \cdot 3H_2O$
Molecular weight	356.09
Physical Characteristics	
Appearance	Tan to brown powder
Organoleptic properties	Odorless
Chemical Characteristics	
Assay	Fe: 15.7% (14.1-17.3%)
Lead (Pb)	Max. 3 ppm
Mercury (Hg)	Max. 0.1 ppm
Cadmium (Cd)	Max. 1 ppm
Arsenic (As)	Max. 3 ppm
Microbiological Characteristics	
Total Plate Count	Max. 3000 cfu/g
Yeast & Molds	Max. 300 cfu/g
E.coli	Absent/g
Salmonella	Absent/25g
Storage Information	
Storage conditions	Cool and dry in well closed original packaging
Shelf life	4 years