

PYRIDOXINE HYDROCHLORIDE



CERTIFICATE OF ANALYSIS

Productcode : 0411604
Lot No. : UQ60613166
Analysis No. : 01A17988

| Test | Result | Limits / Specifications | Dimension / Units |
|---|------------------|-------------------------|-------------------|
| Appearance visual | Powder | Powder | |
| Colour visual | White | White Almost white | |
| Clarity of a solution 5 pc in water Ph.Eur. | Clear | Clear | |
| Colour of a solution 5 pc in water Ph.Eur. | Not more than Y7 | Not more than Y7 | |
| pH of a solution 5 pc in water Ph.Eur. | 2.7 | 2.4 to 3.0 | |
| Identity Ph.Eur.(test B,D) | Corresponds | Corresponds | |
| Loss on drying Ph.Eur. | 0.03 | max. 0.50 | % |
| Sulphated ash Ph.Eur. | 0.00 | 0.00 to 0.10 | % |
| Heavy metals Ph.Eur. | ≤20 | ≤20 | ppm |
| Related substances (HPLC) | | | |
| Impurity A Ph.Eur. | <0.05 | max. 0.10 | % |
| Impurity B Ph.Eur. | <0.05 | max. 0.10 | % |
| Unspecified impurities (each) Ph.Eur. | <0.05 | max. 0.10 | % |
| Total impurities (disregard limit 0.05) Ph.Eur. | <0.05 | max. 0.2 | % |
| Chloride content (dried) USP | 17.1 | 16.9 to 17.6 | % |
| Assay (dried) Ph.Eur. | 99.6 | 99.0 to 100.5 | % |
| Residual solvents | | | |
| Acetone GC-Headspace | Corresponds* | ≤5000 | ppm |
| Lead AAS | Corresponds* | ≤2 | ppm |

*)Checked at regular intervals

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This lot was analysed and released by our authorized Quality Control Department and was found to meet the specifications as given above.

The product meets all requirements of the following valid compendia when tested accordingly:

Ph.Eur. + USP + FCC

DSM Nutritional Products GmbH

The Quality Assurance Manager

A handwritten signature in black ink, appearing to read "Polley". The signature is written in a cursive, flowing style.

Rainer Polley

Pyridoxine Hydrochloride

GMO Statement

We hereby confirm that the product Pyridoxine Hydrochloride is manufactured by conventional processes** and therefore does not contain GMO-DNA.

** The term "conventional process" refers to chemical synthesis, fermentation using non GMM, extraction from conventional plants.

This document is generated electronically and valid without signature.

Disclaimer: The information contained herein is to the best of our knowledge accurate. However, we refuse any liability for the application and use of further processed material containing our product. Solely the producer of the final product has to assume full responsibility according to the relevant local regulations. The content of this document is subject to change without further notice unless otherwise agreed in writing. Please consult your local representative or one of DSM's websites at <http://webshop.dsm.com> for latest version of this document or the latest information.



HFCE

Halal Food Council of Europe المجلس الأوروبي للأغذية الحلال

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Registration No: 827964482

HALAL CERTIFICATE شهادة حلال

المجلس الأوروبي للأغذية الحلال يشهد بأن المنتجات المذكورة أدناه قد إستوفت شروط الحلال وفقاً للشريعة الإسلامية

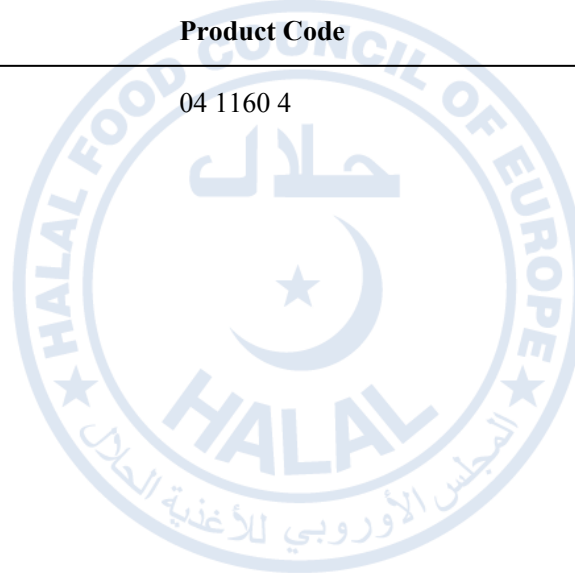
The Halal Food Council of Europe hereby certifies that the products listed below have met the Halal requirements in accordance with Islamic laws.

Date: November 16, 2016

Document #: 5256.5295.IH160384

Company Name & Address: **DSM Nutritional Products, Ltd.** PO Box 2676 Postfach, Basel City CH 40020 Switzerland
Plant Name & Address: **DSM Nutritional Products** Emil Barell Str. 3 Grenzach Wyhlen, Baden Wuerttemberg 79639 Germany

| Product Name | Product Code | Halal-ID | Product Certificate # |
|--------------------------|--------------|----------|-----------------------|
| Pyridoxine Hydrochloride | 04 1160 4 | B60217 | HC-16DSZJ01 |




Iqbal Ahmed Qureshi
Director & Halal Administrator



This certificate is valid until **November 30, 2018** and subject to renewal at that time.



Page 1 of 1

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