



# D-Biotin

## *Coversheet for Certificate of Analysis*

**Productcode :** 5011655  
**Lot No. :** UE01501003  
**Analysis No. :** 04419244

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**CFC Number :** 02714432  
**Articlecode :** 5011655010  
**Sales Name :** 0.005 KG SAMPLES: D-BIOTIN  
**Manufacturing Date :** 25-JAN-2015  
**Best Use Before Date :** 24-JAN-2018

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# d-Biotin

## CERTIFICATE OF ANALYSIS

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Test	Result	Limits / Specification	Dimension / Units
<b>Appearance</b>			
Appearance Visual inspection	crystalline powder	crystalline powder	
<b>Visual Colour</b>			
Colour Visual inspection	white	white	
<b>Visual Colour of a solution 1pc</b>			
in NaOH 0.1N Visual inspection	colourless	colourless	
<b>Visual Clarity of a solution 1pc</b>			
in NaOH 0.1N Visual inspection	clear	clear	
<b>Melting Point</b>			
Melting Point Ph. Eur.	231	229 to 232	°C
<b>Specific Optical Rotation, 589 nm, 20°C</b>			
C=1 in NaOH 0.1N (dried) Ph. Eur.	90.5	89.0 to 93.0	°
<b>Identity</b>			
Identity IR / Ph. Eur.	corresponds	corresponds	
<b>Sulphated Ash</b>			
Sulphated Ash Ph. Eur.	<0.1	max. 0.1	%
<b>Heavy Metals</b>			
Heavy metals ICP-AES / Ph. Eur.	<10	<10	ppm
<b>Lead</b>			
Lead ICP-AES / Ph. Eur.	<2	<2	ppm
<b>Loss on drying</b>			

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Test	Result	Limits / Specification	Dimension / Units
Loss on drying Ph. Eur.	0.25	max. 1.0	%
<b>Residual solvents</b>			
Ethanol GC / Ph. Eur.	229	max. 5000	ppm
Cyclohexane GC / Ph. Eur.	10	max. 50	ppm
<b>Related substances</b>			
Diamino derived HPLC I	0.08	max. 0.20	%
Biotinyl biotin HPLC I	<0.05	max. 0.50	%
Monobenzyl biotin HPLC I	<0.05	max. 0.50	%
Any unspecified impurity HPLC I and II	<0.10	max. 0.10	%
Total of the impurities HPLC I and II	0.08	max. 1.5	%
<b>Assay (dried)</b>			
d-Biotin HPLC I	100.0	98.5 to 100.5	%
<b>Powder fineness</b>			
Through sieve 20 USP Laser diffraction	100	100	%
<b>Chlorides</b>			
Chlorides Ph. Eur.	<0.047	<0.047	%
<b>Sulphates</b>			
Sulphates Ph. Eur.	<0.032	<0.032	%

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:

# d-Biotin

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Ph. Eur + USP + FCC

DSM Nutritional Products France SAS  
The Quality Assurance Manager



Philippe Herfeld

## D-Biotin

### GMO Statement

We hereby confirm that the product D-Biotin 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.

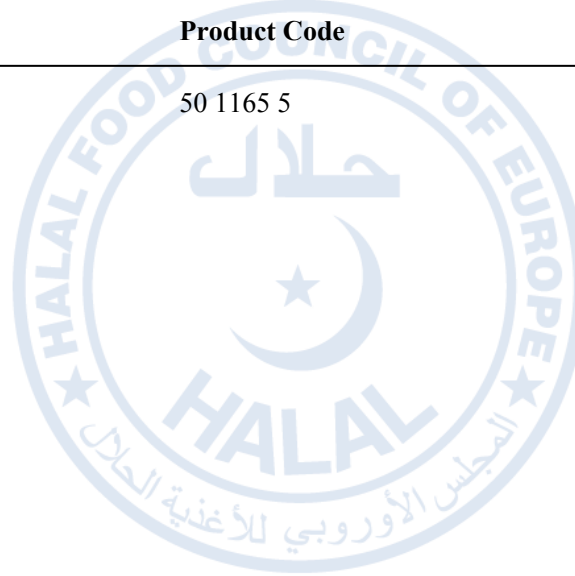
Date: November 16, 2016

Document #: 5256.5296.IH165718

Company Name & Address: **DSM Nutritional Products, Ltd.** PO Box 2676 Postfach, Basel City CH 40020 Switzerland

Plant Name & Address: **DSM Nutritional Products** 1 Boulevard d'Alsace Village Neuf, Alsace 68305 France

Product Name	Product Code	Halal-ID	Product Certificate #
D- Biotin	50 1165 5	A64117	HC-16DSW194



  
**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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