



LUFA Postfach 10 06 55 31756 Hameln

Terra Optima AG
Herrn Heiko Petermann
Rathausstraße 14
CH – 6430 Baar

Analytical Report

Order-No.	-
Lab.-No.	DD 1901006
Page 1 of 3	

Hameln, 28.05.2019 /we
information: Dr. Paradies-Severin
telephone: 05151/9871-53

Identification: (according to the sender's statement)	Humiverse® Lfd.-Nr. 1001
Type/Quantity:	1074 g incl. package
Date of receipt:	10.04.2019
Start of analysis:	10.04.2019
End of analysis:	28.05.2019
Date of production:	Sampler: H. Petermann (sampling by client)
of consignment:	
of sampling:	08.04.2019

Parameter	Declaration	Result in original	Result in dry matter
dry matter	%	73,39	
method: VDLUFA II.1, 15.2.1; 2014; #6			
total nitrogen	%	<0,1	
method: VDLUFA II, 3.5.2.7; 1995			
P2O5 (mineral acid soluble)	%	<0,01	
method: DIN EN ISO 11885 (E 22); 2009-09			
K2O (mineral acid soluble)	%	0,03	
method: DIN EN ISO 11885 (E22); 2009-09			
magnesium (MgO)	%	0,05	
method: DIN EN ISO 11885 (E22); 2009-09			
sulfur (mineral acid soluble)	%	1,47	
method: DIN EN ISO 11885 (E22); 2009-09			
neutralising value (CaCO3)	%	<0,01	
method: VDLUFA II.1, 6.3; 1995			
neutralising value (CaO)	%	<0,01	
method: VDLUFA II.1, 6.3; 1995			
organic matter (loss on ignition)	%	73	
method: VDLUFA II.1, 10.1; 2014; #6			
chloride	%	<0,2	
method: DIN 38405-D 1; 1985-12; #6			

conversion: 1 % = 10.000 mg/kg

„< ...“ = value is less than the adjoining lower limit of the operating range

#1 = LUFA Standort OL, Jägerstr. 23-27; #2 = LUFA Standort OL, Ammerländer Heerstr. 123; #3 = LUFA Standort OL, Ammerländer Heerstr. 115-117; #5 Untersuchung erfolgte durch Fremdlabor; #6 = not subject to quality control requirements

The results refer to the present material of the sample. It is not allowed to copy parts of this analytical report (or to pass parts of it to someone) without Authorization of the LUFA Nord-West, Hameln.



Parameter	Declaration	Result in original	Result in dry matter
boron method: DIN EN ISO 11885 (E22); 2009-09	mg/kg	20,4	
iron method: DIN EN ISO 11885 (E22); 2009-09	mg/kg	61	
cobalt method: DIN EN ISO 17294-2 (E 29); 2005-02	mg/kg	<0,10	
copper method: DIN EN ISO 11885 (E22); 2009-09	mg/kg	2	
manganese method: DIN EN ISO 11885 (E22); 2009-09	mg/kg	28	
molybdenum method: DIN EN ISO 17294-2 (E 29); 2005-02	mg/kg	0,21	
selenium method: DIN 38405-23; 1994-10	mg/kg	<0,20	
zinc method: DIN EN ISO 11885 (E22); 2009-09	mg/kg	9	

conversion: 1 % = 10.000 mg/kg

„< ...“ = value is less than the adjoining lower limit of the operating range

#1 = LUFA Standort OL, Jägerstr. 23-27; #2 = LUFA Standort OL, Ammerländer Heerstr. 123; #3 = LUFA Standort OL, Ammerländer Heerstr. 115-117; #5 Untersuchung erfolgte durch Fremdlabor; #6 = not subject to quality control requirements

The results refer to the present material of the sample. It is not allowed to copy parts of this analytical report (or to pass parts of it to someone) without Authorization of the LUFA Nord-West, Hameln.



Lab.-No. DD 1901006 of 28.05.2019 Page 3 of 3

Heavy metals (DüMV Anlage 2, Tab. 1.4)	Result in original	Result in dry matter
arsenic method: DIN EN ISO 17294-2 (E 29); 2005-02	mg/kg	<0,10
lead method: DIN EN ISO 17294-2 (E 29); 2005-02	mg/kg	<1
cadmium method: DIN EN ISO 17294-2 (E 29); 2005-02	mg/kg	0,10
chromium method: DIN EN ISO 11885 (E22); 2009-09	mg/kg	<2
chromium VI method: DIN 38405-D 24; 1987-05; #5	mg/kg	<0,3
nickel method: DIN EN ISO 11885 (E 22); 2009-09	mg/kg	2,73
mercury method: DIN EN 1483 (E 12); 2007-07	mg/kg	<0,01
thallium method: DIN EN ISO 17294-2 (E 29); 2005-02	mg/kg	<0,01

remarks:

C. Nele
In Vertretung

Dr. Inge Paradies-Severin, laboratory manager

conversion: 1 % = 10.000 mg/kg

„< ...“ = value is less than the adjoining lower limit of the operating range

#1 = LUFA Standort OL, Jägerstr. 23-27; #2 = LUFA Standort OL, Ammerländer Heerstr. 123; #3 = LUFA Standort OL, Ammerländer Heerstr. 115-117; #5 Untersuchung erfolgte durch Fremdlabor; #6 = not subject to quality control requirements

The results refer to the present material of the sample. It is not allowed to copy parts of this analytical report (or to pass parts of it to someone) without Authorization of the LUFA Nord-West, Hameln.