



**PRODUCT INFO
& DATASHEET**

ZEOLITE FARM / FEED

12/2016

1/ PRODUCT SPECIFICATIONS

Product name : Natural Zeolite, type Clinoptilolite of sedimentary origin
Empirical formula : $(Ca,K_2,Na_2,Mg)_4Al_8Si_40O_96.24H_2O$
 Chemical name : Hydrated calcium aluminosilicate.
Chemical type : Molecular sieve
CAS No. Natural Zeolite 1318-02-1
CAS No. Clinoptilolite 12173-10-3
EC No. 215-283-8

2/ CHEMICAL COMPOSITION

Silicon Dioxide SiO₂	64.18-75.50%	Sodium Oxide Na₂O	0.10-2.97%
Aluminum Oxide Al₂O₃	10.93-14.80%	Titanium Dioxide TiO₂	0.08-0.39%
Calcium Oxide CaO	1.43-11.68%	Phosphorus Oxide P₂O₅	0.01 – 0.18%
Kalium Oxide K₂O	1.24-4.24%	Iron Oxide FeO	0.29-1.43%
Iron Oxide Fe₂O₃	0.12-2.45%	Sulfur Oxide SO₃	0.00-0.23%
Magnesium Oxide MgO	0.29-1.43%	L.O.I. Humidity	max. 6% SI/AI 4.8 – 5.4

3/ PHYSICAL COMPOSITION

Clinoptilolite	82 - 84%	Plagioclase	3 - 4%
Cristobalite	9%	Quarz	traces
Clay mica	2 - 3%	Dioxins & - PCB's	max. 1.5 ng 2,3,7,8-TCDD TEQ/kg Tested on heavy metals and samonella

4/ PHYSICAL-MECHANICAL DATA

Softening point	1 260 0C	Porosity	24 - 32 %
Melting point	1 340 0C	Effective diameter of pores	0.4 nm (4 angstrom)
Pour point	1 420 0C	Compactness	70%
Compression strenght	33 MPa	Whiteness	70%
Specific weight	750-950kg/m ³	Mohs hardness	2 - 3
Volume weight	1333-1176L	Grindability according to VTI	kVTI = 1,628
Appearance & smell	grey-green-without smell	Water Absorption	34 - 36 % pH 6.8 – 7.2

5/ ION EXCHANGE PROPERTIES

Total exchange	Ca ²⁺ 0,64 - 0,98 mol/kg Mg ²⁺ 0,06 - 0,19 mol/kg	K ⁺ 0,22 - 0,45 mol/kg Na ⁺ 0,01 - 0,19 mol/kg min. 0,70 mol/kg 1,2 - 1,5 mol/kg
Partial exchange capacity NH₄⁺		
Total exchange capacity NH₄⁺		
Sorption of steam by dehydrated rock	at relative humidity of 52 % at relative humidity of 98 %	7,5 - 8,5 g H ₂ O/100g 13,5-14,5 g H ₂ O/100g

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