



**NATIONAL TECHNICAL UNIVERSITY OF ATHENS**  
**DEPARTMENT OF CHEMICAL ENGINEERING, DIVISION IV**  
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**Subject: Test Report**

We present the mean values of the results from the analysis of ten compost samples taken from ten separate compost bags with the commercial name "Humo-oliva"

- Visual** All material is dark brown. Parent material is no longer visible.  
Structure is mixture of fine and medium size particle and humus crumbs.
- Odor** Smells like rich humus from the forest floor; no ammonia or anaerobic odor.

**physical parameters**

					Evaluation Method
apparent density	g/l	690	+/-	45	Method book of BGK
dry matter (DM)	%	81.93	+/-	4.6	Method book of BGK
water content	%	18.07	+/-	4.6	Method book of BGK
Cation Exchange Capacity	meq/100g	48	+/-	5.5	ASA 41-2.2
pH		7.9	+/-	0.3	TMECC
Electric Conductivity	μS/cm	920	+/-	250	TMEC 04.15

**soil improvement**

organic matter (OM) in DM	%	79	+/-	5.2	Method book of BGK
alkaline-effective substances (CaO) in DM	%	5.08	+/-	1.2	Method book of BGK
Total Organic Carbon (TOC) in DM	%	35.16	+/-	2.33	Method book of BGK
Water Holding Capacity (WHC)	%	185	+/-	25	TMECC
Germination Index (GI)	%	157	+/-	22	TMECC
Humic acid (HA)	%	3.2	+/-	1.2	TMECC
Fulvic acid (FA)	%	2.4	+/-	0.5	TMECC
C:N ratio		16.17	+/-	2.16	calculated

**plant nutrient**

total Nitrogen, (N) in DM	%	2.3	+/-	0.47	Method book of BGK
total phosphate (P <sub>2</sub> O <sub>5</sub> ) in DM	%	0.65	+/-	0.25	Method book of BGK
total Potassium (K <sub>2</sub> O) in DM	%	1.84	+/-	0.51	Method book of BGK
total Magnesium (MgO) in DM	%	0.36	+/-	0.09	Method book of BGK
total Sulfur (S) in DM	%	0.29	+/-	0.025	EN ISO 11885
Ammonium (N-NH <sub>4</sub> ) of OM	mg/l	2.21	+/-	0.188	Method book of BGK
Nitrate (N-NO <sub>3</sub> ) of OM	mg/l	1.17	+/-	0.12	Method book of BGK
total Boron (B) in DM	mg/kg	38	+/-	3.4	EN ISO 11885
Sodium (Na) in DM	mg/kg	423	+/-	4.58	EN ISO 11886
Manganese (Mn) in DM	mg/kg	105.5	+/-	30.5	EN ISO 11887

Molybdenum (Mo) in DM	mg/kg	0.95	+/-	0.12	EN ISO 11888
total Iron (Fe) in DM	mg/kg	2640	+/-	740	EN ISO 11889
Cobalt (Co) in DM	mg/kg	1.65	+/-	0.14	EN ISO 11890
Selenium (Se) in DM	mg/kg	0.5	+/-	0.04	DIN EN ISO 17294-2 (E29)
Copper (Cu) in DM	mg/kg	26.1	+/-	1.8	Method book of BGK
Zinc (Zn) in DM	mg/kg	34	+/-	2.2	Method book of BGK

### potential harmful substances

Thalium (Tl) in DM	mg/kg	0.19	+/-	0.022	DIN EN ISO 17294-2 (E29)
Arsenic (As) in DM	mg/kg	2.4	+/-	0.25	EN ISO 11889
Lead (Pb) in DM	mg/kg	4.56	+/-	0.65	Method book of BGK
Cadmium (Cd) in DM	mg/kg	0.22	+/-	0.021	Method book of BGK
Chromium (Cr) in DM	mg/kg	7.48	+/-	0.65	Method book of BGK
Nickel (Ni) in DM	mg/kg	7.02	+/-	0.62	EN ISO 11889
Mercury (Hg) in DM	mg/kg	0.06	+/-	0.01	Method book of BGK

### water soluble plant nutrients

Magnesium water soluble (as MgO) in DM	mg/kg	180	+/-	25	EN ISO 11889
Sodium (Na) water soluble in DM	mg/kg	360	+/-	18	EN ISO 11890
Sulfur (S) water soluble in DM	mg/kg	440	+/-	55	EN ISO 11891
Boron (hot water soluble) in DM	mg/kg	24	+/-	1.8	EN ISO 11892
Calcium (Ca) water soluble in DM	mg/kg	630	+/-	85	EN ISO 11893
Cobalt (Co) water soluble in DM	mg/kg	0.08	+/-	0.01	EN ISO 11894
Copper (Cu) water soluble in DM	mg/kg	1.5	+/-	0.18	EN ISO 11895
Iron (Fe) water soluble in DM	mg/kg	100	+/-	24	EN ISO 11896
Manganese (Mn) water soluble in DM	mg/kg	1.4	+/-	0.22	EN ISO 11897
Molybdenum (Mo) water soluble in DM	mg/kg	0.9	+/-	0.08	EN ISO 11898
Zinc (Zn) water soluble in DM	mg/kg	1.9	+/-	0.22	EN ISO 11899

### microbiological characteristics

Heterotrophic Plate Count	CFU/gDM	$10^8$ - $10^{10}$			TMECC
DRI-ASTM (Oxygen Consumption)	mg O <sub>2</sub> /gOM/h	35	+/-	5.8	TMECC

Head of the laboratory



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