

Description: Biorex Leonardite is a premium, naturally occurring organic soil conditioner derived from highly oxidized deposits of fossilized plant matter. It distinguishes itself on the international market through its exceptional chemical purity, lower natural moisture content, and a heavy metal contaminant profile that falls significantly below rigorous European thresholds. This material is highly optimal for formulating clean liquid humic extracts (such as potassium/sodium humates), blending premium organic fertilizers, and direct agricultural soil reclamation.

1. GENERAL INFORMATION & TRACEABILITY

Product Name	Raw Premium Leonardite	Customs Code (HS)	3101.00.00
Material Origin	Highly Oxidized Plant Fossils	Reference Analysis	MAC Report No. 2667/126 (06/03/2026)
Physical State	Solid (Powder / Granules)	Legal Compliance	Dlgs 75 29/04/10 (Leonardite Modifier)

2. PRIMARY CHEMICAL & PHYSICAL SPECIFICATIONS

The following analytical benchmarks indicate a concentrated active matrix compared to standard market alternatives, offering enhanced logistical and manufacturing efficiency.

Analytical Parameter	Analyzed Value	Unit	Test Method	Reference Threshold
Moisture (Drying Temp 103 °C ± 2)	18.3	% w/w	UNI EN 13040:2008	Not limited
pH (in H ₂ O)	4.5	pH units	DM 17/06/2002 GU n.220	Not limited
Total Organic Carbon (TOC)	48.5	% D.B.	DM 21/12/00 G.U. 21 (Direct Titr.)	≥ 20 %
Total Organic Matter (Calculated)	97.0	% D.B.	DM 21/12/00 (TOC × 2)	Premium Grade
Extractable Organic Carbon (TEC)	18.00	% D.B.	DM 21/12/00 Suppl. n. 6	-
Humified Carbon (HA + FA)	17.78	% D.B.	DM 21/12/00 Suppl. n. 6	-

ANALYTICAL PARAMETER	ANALYZED VALUE	UNIT	TEST METHOD	REFERENCE THRESHOLD
Humified Organic Matter (Calculated)	35.6	% D.B.	DM 21/12/00 (Humified OM)	-
Humified OM / Extractable OM Ratio	98.9	%	DM 21/12/00 Index Evaluation	≥ 60 %

Quality Excellence Endorsement

The exceptionally high humification ratio of **98.9%** guarantees that virtually all extracted organic elements consist of highly active, complex-chain Humic and Fulvic acids. Furthermore, a **Total Organic Matter yield of 97.0% on a Dry Basis** reveals an incredibly low inert ash fraction ($\leq 3\%$), positioning this specific lot at the very top of global market standards.

3. SAFETY PROFILE & HEAVY METALS CONTAMINANTS

Heavy metal monitoring confirms an ecologically pure material, comfortably satisfying the rigid safety margins of Italian and European fertilizer regulations (Dlgs 75/2010):

CONTAMINANT ELEMENT	DETECTED LEVEL	UNIT	MAX PERMISSIBLE LIMIT (DLGS 75/10)	STATUS
Total Lead (Pb)	3.60	mg/kg d.b.	≤ 140 mg/kg	COMPLIANT
Total Cadmium (Cd)	< 0.2	mg/kg d.b.	≤ 1.5 mg/kg	COMPLIANT
Total Nickel (Ni)	4.30	mg/kg d.b.	≤ 100 mg/kg	COMPLIANT
Total Zinc (Zn)	4.60	mg/kg d.b.	≤ 500 mg/kg	COMPLIANT
Total Copper (Cu)	5.70	mg/kg d.b.	≤ 230 mg/kg	COMPLIANT
Total Mercury (Hg)	0.21	mg/kg d.b.	≤ 1.5 mg/kg	COMPLIANT
Hexavalent Chromium (Cr VI)	< 0.1	mg/kg d.b.	≤ 0.5 mg/kg	COMPLIANT

4. LOGISTICS, STORAGE, & HANDLING GUIDANCE

- **Commercial Advantage (Low Moisture):** Featuring a natural moisture content of only 18.3% (compared to the standard industry average of 30-35%), this product significantly limits the cost of transporting dead water weight, enabling buyers to receive a much higher active dry payload per freight metric ton.

- **Storage:** Keep in a cool, ventilated, and dry warehouse area inside the original sealed polypropylene (PP) big bags to preserve structural consistency and protect against external moisture variances.
- **Handling:** Employ standard personal protective equipment common for handling non-toxic industrial powders (a simple dust mask and standard protective gloves).

BIOREX LLC • Registered Office: str. Svitlitzkogo 25, KIEV (Ukraine)

The data presented here accurately reflects official testing performed on client-submitted samples by the accredited third-party laboratory MAC S.r.l. on March 6, 2026.