

# Source X<sup>®</sup>

Leonardite, a natural form of humate, mined from Stoney Creek Mine

Leonardite Products Target Moisture: 24-28%

Radwag PMC 50/NH Moisture Analyzer Balance

Bulk Density: 51 pounds per cubic foot (816.94 kg/m<sup>3</sup> metric equivalent)

## Typical Data - Random Sample

Properties	As Received	Dry Weight	LBS. per Ton as Received
Moisture	22.4%		
Total Solids	77.6%		1552.0
Organic Matter	58.0%	74.74%	1160.0
Ash	19.6%	25.26%	392.0
C:N Ratio	44:1		
Total Carbon	34.66%	44.66%	
pH	3.9		

Nutrients	As Received	Dry Weight	LBS. per Ton as Received
Nitrogen (N)			
Total	0.79%	1.02%	15.8
Organic (N)	0.75%	0.96%	15.0
Ammonium Nitrogen (N)	0.012%	0.015%	.2
Nitrate Nitrogen (N)	0.03%	0.04%	.6
Sulfur (S)	1.44%	1.86%	28.8
Calcium (C)	2.43%	3.13%	48.6
Magnesium (Mg)	0.72%	0.93%	14.4
Sodium (Na)	0.140%	0.180%	02.8

Micro Nutrients	As Received	Dry Weight	LBS. per Ton as Received
Iron (Fe)	11200 ppm	14433 ppm	22.4
Manganese (Mn)	195 ppm	251 ppm	.4
Zinc (Zn)	61.7 ppm	80 ppm	.1
Copper (Cu)	22.1 ppm	28 ppm	
Boron (B)	<100 ppm		

<b>Humic Acid</b>	65.80%	Calif HA/JC ( rev 2:3-11-09)
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Analysis above conducted by Midwest Laboratories, Inc. July 2022

### Humic Acid Analysis by Motz Laboratory, Inc., Phoenix, AZ, July 2022

Moisture	12.78%	AOAC 943.01
Humic Acid	51.36%	ISO 19822 HPTA Approved Method
Hydrophobic Fulvic Acid Fraction	16.43%	ISO 19822 HPTA Approved Method

### Humic Acid Analysis by Thornton Laboratories., Tampa, FL, July 2022

Humic Acid	66.37%	JAOAC, 97(3) : 721-730 (HPTA)
Fulvic Acid	10.32%	JAOAC, 97(3) : 721-730 (HPTA)

### Humic Acid Analysis by A & L Western Agricultural Laboratories Inc., Modesto, CA, July 2022

Solid	18.87%	
Humic Acid	49.73%	Humic Acid % CDEFA Method
Fulvic Acid	13.53%	

Ammonium Nitrogen, Nitrate Nitrogen, Phosphorous P205, Potassium K20, Magnesium, Chloride <1%.

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