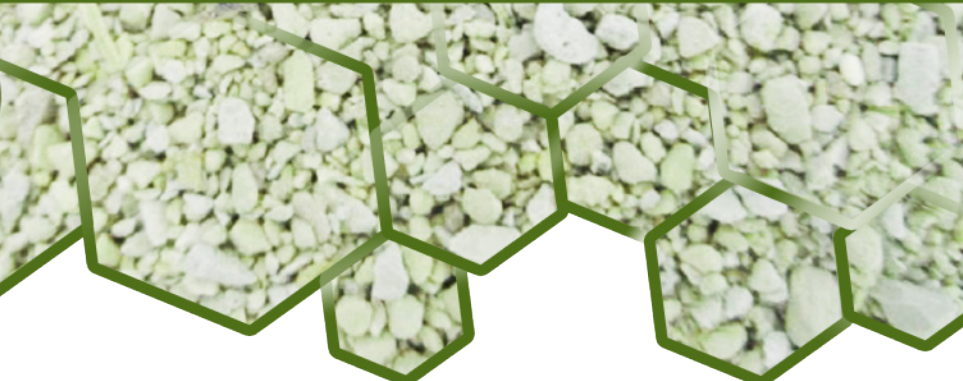




CLINOPTILOLITE ZEOLITE



Description

Commercial name: ZN
Active ingredient: Natural Clinoptilolite Zeolite
Formula: $(Ca_4)+Mg(Al_6Si_{30}O_{72})+2H_2O$

The zeolite is a volcanic rock of high porosity and negative charge which acts similar to a chelate, unblocking the nutrients present in soils and improving its retention and structure.

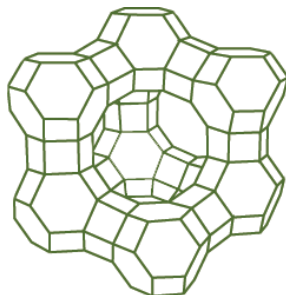
Composition

| ELEMENT | % |
|---------------------------------------------------|--------------|
| Nitrogen (N) | 3.69 |
| Sodium (Na ₂ O) | 1.80 |
| Magnesium (MgO) | 2.51 |
| Aluminium (Al ₂ O ₃) | 9.42 |
| Silicon (SiO ₂) | 49.79 |
| Potassium (K ₂ O) | 2.17 |
| Sulphur (SO ₃) | 0.37 |
| Calcium (CaO) | 5.53 |
| Iron (FeO) | 2.01 |
| Manganese (MnO) | 0.04 |
| Zinc (Zn) | 0.01 |
| Boron (B) | 21.002 mg/Kg |
| Copper (Cu) | 18.149 mg/Kg |
| Molybdenum (Mo) | 7.563 mg/Kg |



Physical properties

Cation Exchange Capacity: 90.6 meq/100gr
 Clinoptilolite purity: >93%
 Color: Beige to light green.
 Average pore diameter: 8.95 nm
 Aparent density: 0.953 gr/cm³.
 Solubility: INSOLUBLE (>0,01%).
 Hardness: 4 Moh's.
 pH: 7.65
 Superficial area: 22.4m²/gr.
 Hygroscopicity: 43%.



Presentation

Available mesh:
 ZN-006: mesh 4X8 (sizes from 3 to 5mm)
 ZN-012: mesh 8x12 (sizes from 2 to 3 mm)
 ZN-018: mesh 12x30 (sizes from 0.8 to 1.7 mm)
 ZN-100: mesh 30x100 (0.1 to 0.8 mm - powder)
 ZN-325: mesh 325x600 (smaller than 0.05 mm)

Package: polypropylene 50 kg sacks.

Benefits

- Reduces 1 out of 3 waterings and retains moisture.
- Does not burn the plant root, since it is 100% natural.
- It's compatible with other chemical and organic fertilizers.
- It captures the nitrogen freeing it slowly, thus saving up to 30% of its application.
- Favours the reproduction of beneficial bacteria.
- Controls some fungi and pathogen proliferation.
- Amends the soils structure - both sandy and clayey, avoiding compaction.
- Increases nutrients retention capacity.
- Contributes to the development of the roots system.
- Levels soil pH.
- Increases the yields and quality of the crops, as well as their lifespan.
- Recovers saline soils, reducing the sodium (Na) content.
- Promotes the nutrients availability.
- Helps the germination and the sustained growth of grass and grains.
- It's ideal for all type of soils and crops.

Recommendations

Mix with the starter fertilizer - either organic or chemical - and apply annually, preferably before sowing. For established crops it is suggested to apply along with the fertilizer the closest to the roots and within the soils first centimeters.

| | |
|----------------------------------|----------------------|
| Grains, legumes and tubers | 200 - 400 kg/Ha |
| Vegetables | 750 - 1,000 kg /Ha |
| Grass | 350 - 400 kg/Ha |
| Sugar cane | 300 - 400 kg/Ha |
| Rice | 100 - 200 kg/Ha |
| Banana | 50 - 100 gr/plant |
| Coffee | 90 - 150 gr/plant |
| Flowers | 50 - 100 gr/plant |
| Fruits and trees | 500 - 1,000 gr/plant |

Precautions

This product is NOT food grade; it is not suggested to ingest. Since it can cause skin dryness and powder lungs, it is recommended to employ special safety equipment for handling: overall and gloves, respirator and goggles. It is NOT corrosive nor toxic, although it is volatile. In case of eye or skin contact, wash with abundant water. Keep away from the sun and moisture, preferably on pallets. Dispose the package in an appropriate place, ensuring to not pollute the closest water bodies.