

<p style="margin-left: 36pt; text-indent: -18pt" class="MsoNormal">◆◆◆◆◆◆ Natural Zeolite type Clinoptilolite available as micronized or granular.</p> <p style="margin-left: 36pt" class="MsoNormal"></p> <p style="margin-left: 18pt" class="MsoNormal">◆</p> <p style="margin-left: 36pt; text-indent: -18pt" class="MsoNormal">◆◆◆◆◆◆ Applications: </p> <p class="MsoNormal">FEED ADDITIVE</p> <p class="MsoNormal">The natural Zeolite structure binds mycotoxins to its surface and ionically buffers the digestive tract. Due to the surface cation exchange capacity (CEC), the Zeolite surface is polar and attracts the complex and polar mycotoxin molecules.
 The internal CEC binds positively charged ions such as the ammonium cation. When excess ammonia builds up in the digestive tract, Zeolite exchanges ion, thereby reducing the toxic effects of excess ammonia.</p> <p class="MsoNormal">Zeolite is approved by EU for usage in the swine and poultry industry as Myco-Toxin binder.
 (70/524/EEC)

 Zeolite is approved by FDA for usage in animal feeds as an anti-caking agent.
 (CFR 582-2727)</p> <p class="MsoNormal">Benefits of Clinoptilolite:</p> <p class="MsoNormal">◆ Anti caking/flow agent for animal feeds
 ◆ Increased feed pellet durability
 ◆ Improved animal growth and weight gain by increased food conversion rate efficiencies
 ◆ Strong affinity for ammonium provides superior odour control and a healthy environment
 ◆ Zeolite is a rumen buffer for the total digestive tract of high performance dairy cattle
 ◆ Reduction of scours, acidosis, diarrhea, enteritis and other gastrointestinal diseases
 ◆ Improved dispersion of feed ration ingredients by reducing agglomeration </p> <p class="MsoNormal">SOIL CONDITIONER / FERTILIZER ADDITIVE</p> <p class="MsoNormal">Zeolite is the most effective way to supplement root zone CEC and reduce fertilizer usage.</p> <p class="MsoNormal">Zeolites are slow release fertilisers. Plant nutrients such as nitrogen and potassium are held by the negatively charged clinoptilolite structure and released on demand.</p> <p class="MsoNormal">Zeolites increase nutrient retention; reduce environmental nutrient losses and reduce fertilizer requirements by establishing a replenishable and balanced nutrient supply in the plant root zone.</p> <p class="MsoNormal"><span style="font-size: 9pt; font-family: 'Arial','sans-serif'; color:

Zeolite adds a permanent water reservoir, providing prolonged moisture holding power during dry periods and it promotes rapid re-wetting and improved lateral spread of water in the root zone during irrigation.

Zeolite is very porous with an incredibly large surface area. The selectivity of zeolite for ammonium helps buffer the soil and prevents toxicity when excess ammonium is applied. The retention and timely release of needed nutrients by zeolite improves overall crop yield. It provides a lasting reservoir of nutrients allowing the user to reduce fertilizers and have a better vegetation.

The basis for Zeolite's stable inorganic structure is the stacking of one alumina to five silica tetrahedra in a unique symmetrical arrangement. This symmetrical stacking results in an open framework with a void space which retains water. The net negative charge within the voids holds the cations for the cation exchange capacity. The open and negatively charged framework results in Zeolite's ability to exchange plant nutrients into and out of the stable three dimensional honeycomb framework.

Advantages of Natural Zeolites

- ◆ Increases cation exchange capacity (CEC)
- ◆ Reduces fertilizer usage
- ◆ In some cases, nitrogen usage reduced by 25%
- ◆ Reduces water usage
- ◆ Provides available potassium (ion exchanged from the Zeolite structure)
- ◆ Increases phosphorous utilization and availability by 89%
- ◆ Cost effective

waste water treatment

Zeolites contribute to a cleaner, safer environment in a great number of ways. In fact nearly every application of zeolites has been driven by environmental concerns and plays a significant role in reducing toxic waste.

Zeolite's highly porous structure captures particulate contamination down to 4 microns in size.

It has a natural negative charge which gives it the capacity to adsorb cations and some organic contaminants and undesirable odours.

Zeolites are highly selective scavengers of a variety of metal cations that can be removed from liquid effluents through the process of ion-exchange.

Natural zeolites are excellent ion exchangers for the removal and recovery of heavy metal cations (Pb, Cu, Cd, Zn, Co, Cr, Mn and Fe; Pb, Cu as high as 97%) from drinking and waste-waters.

Ammonia is a major issue for the treatment of municipal wastewater. This remarkable mineral has a huge capacity for adsorbing ammonia. Ammonia levels in municipal wastewaters can be reduced to 10-15 ppm after treatment facilities.

The filtering abilities of zeolites offer a versatile and environmentally friendly option to capture most contaminants found in water systems.

'Arial','sans-serif'; color: black">Natural zeolites can perform these functions due to their high ion exchange capacity, adsorption-desorption energies and ability to modification.</p>
<p class="MsoNormal">CAT LITTER</p> <p class="MsoNormal">It is 100% natural cat litter. Natural Zeolite Mineral is a molecular sponge with high porosity lock ♦ up capability to absorb free ammonia and other cat odors.</p> <p class="MsoNormal">Odor Neutralization</p> <p class="MsoNormal">Zeolite is the world's only naturally occurring negatively charged mineral and therefore zeolite seeks and holds positive ions and aqueous molecules (such as salts and ammonia) from cat waste. Unlike clay absorbents which have plate type structures, zeolites have crystal lattice structures enabling large surface areas that trap waste molecules and odours through molecular sieving capability.</p> <p class="MsoNormal">Maximum Hygiene</p> <p class="MsoNormal">It♦inhibits bacterial growth, providing maximum hygiene.</p> <p class="MsoNormal">Large Absorption</p> <p class="MsoNormal">It will enable a longer time of usage due to its large absorption capacity.</p> <p class="MsoNormal">Non Sticking</p> <p class="MsoNormal">It will not stick to the bottom of litter box & cat's paws.</p> <p class="MsoNormal">Non-Mudding</p> <p class="MsoNormal">It does not liquefy by its structural properties.</p> <p class="MsoNormal">POOL FILTRATION MEDIA </p> <p class="MsoNormal">Zeolite is the Superior Pool Filtration Media.</p> <p class="MsoNormal">Natural zeolite offers a unique three-dimensional-honeycomb structure and rough, pitted surface.</p> <p class="MsoNormal">Zeolite's crystal structure, irregular surface and high surface area make it a highly effective trap for fine particulates and ammonium ions.</p> <p class="MsoNormal">Microporous zeolite media contains a large surface area for entrapment of suspended particles down to colloidal size.</p> <p class="MsoNormal">Angularity of zeolite grains and tapered internal pore spaces allow for removal of suspended solids by bridging, straining, adhesion, adsorption and flocculation.</p> <p class="MsoNormal">Zeolite removes ammonia from water. Thus reduces the need for chlorine and the formation of chloramines. The porous structure of zeolite is imbued with

sodium ions which remove ammonia ions through ion exchange.

Lower ammonia ratios enable a better water balance and a reduced need for supporting chemicals. For this reason total dissolved solids are more easily controlled, providing reduced turbidity levels.

Benefits of Using Zeolite

◆ Improves Water Clarity
◆ Filters Particles Down to 3 Microns
◆ Greater Surface Area
◆ Superior Purification
◆ Greater Ammonia Absorption
◆ Reduces Chloramines, Odors and Eye Burning
◆ Chemical Demand and Need for Superchlorination is Reduced
◆ Saves Water and Energy
◆ Doubles Time Between Backwashes
◆ Natural and Environmentally Safe

ZEOLITE FILTER MEDIA

Zeolites are a group of natural minerals that have certain properties that enable them to exchange one charged ion present in their crystalline structure, for another one present in the surrounding media.

Zeolite is an efficient ammonia remover and also provides a large surface area for nitrifying bacteria in recirculating systems.

Zeolite does not only provide optical clearness of your water but it also keeps it biologically clean.

Key Benefits

- ◆ Absorbs toxic ammonia
- ◆ Absorbs heavy metals
- ◆ Removes micro particles in the water
- ◆ Enhances the overall health of the aquarium
- ◆ Reduces algae growth
- ◆ Will not cloud the water

RADIOACTIVE WASTE TREATMENT

Natural zeolite has a high ion exchange capacity and a particular affinity for heavy metal cations. It can absorb elements such as strontium 90, caesium 137 and other radioactive isotopes from solution and hold them in its 3 dimensional crystal framework. Zeolites react readily with cement and glass systems thus allowing the radioactive waste to be entrapped and contained safely. Zeolites are physically robust and resistant to nuclear degradation, and they are less expensive than organic ion exchange resins.

Sorbent Barriers For Radioactive Waste

Permeable barriers incorporate sorbent materials, including zeolite, to selectively contain contaminants that are percolating from shallow land burial sites of low-level radioactive waste. The zeolites are combined with clays and other materials that retard the migration of leachate for a period long enough to allow exchange and/or decay of radioactive ions.

Nontoxic. Completely safe for fish and nitrifying bacteria

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