Product Data Sheet

AQUAKEEPER- Hydrogel

DESCRIPTION

AQUAKEEPER is a superabsorbent anionic polyacrylamide polymer. It is a cross-linked copolymer of acrylamide and potassium acrylate that are water insoluble.

AQUAKEEPER has the property of absorbing up to 500 times its weight in distilled water and it becomes gel.

The polymer of AQUAKEEPER consist of a set of polymeric chains that are parallel to each other and regularly linked to each other by cross-linking agents, thus forming a network. When water comes into contact with one of these chains, it is drawn into the molecule by osmosis. Water rapidly migrates into the interior of the polymer network where it is stored. As the soil dries out, the polymer releases up to 95% of the absorbed water into soil.

APPLICATION OF AQUAKEEPER

AQUAKEEPER is recommended to be used in several applications such as:

- ARBORICULTURE: AQUAKEEPER is effective in the planting trees, bushes, and samplings. It makes it possible to reduce the mortality rate due to transplanting shock and to enhance root development and therefore bring about more rapid growth and production.
- LAWNS AND SOD: AQUAKEEPER is very easily used throughout the growth cycle of lawns and sod. It ensures good germination, faster root development, and regular and even growth of lawns. The rooting sod is also faster.
- HYDROSEEDING: AQUAKEEPER is commonly used in hydro-seeding to stabilize newly graded soils. Mixed with or without cellulose mulch, it makes it possible to maintain a minimum of surface water, which permits rapid sprouting of seedlings even in dry areas.
- SOIL MIXES: AQUAKEEPER provides a reduction in water stress. It ensures that cuttings and transplants take root better and that seedlings grow faster. Irrigation frequencies are spread out. It is an ideal solution in substrates for containers, hanging plants, and houseplants.
- MIXING WITH FERTILIZER: AQUAKEEPER can reduce leaching of nutrient in the soil, by mixing it dry into fertilizer preparations. The behavior of plants fertilized with this mixture makes it possible to maintain or even increase yield while at the same time protecting the environment from leaching.
- AGRICULTURE: AQUAKEEPER has also shown its effectiveness in large scale farming, especially at the time of germination and development of the root network due to good aeration of the soil. The storage of rainwater or irrigation by AQUAKEEPER delays the wilting point and thus makes it possible for certain plants to begin to be well established while waiting for the water regime to become adequate.

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- AQUAKEEPER ensures a good population and an even growth of plants even in very permeable soils.
- TRANSPORTING CUT FLOWERS: AQUAKEEPER in the form of hydrogel may be placed in sealed plastic pouches. Once frozen, the pouches are often used in the transport of heat-sensitive plant products such as cut flowers. The hydrogel has excellent resistance to heat shock and does not leak after thawing.

TECHNICAL SPECIFICATION

Dry matter	85-90%
Apparent density	0.85
Specific weight	1.10 g/cm³
pH	8.10
Appearance	Dry = white powder Hydrated = transparent gel
Particle size	≤1.3 mm or ≤3.0 mm
Shelf live of the dry product	5 years
Packaging	25 kg plastic bag

INFORMATION ON PRODUCT USE

Application of dry or hydrated product:

- After hydration of the product, it becomes a transparent gel that is greatly expanded.
- When the product is mixed dry into a substrate, it is recommended that an empty space of a minimum of 15% be left in containers. During hydration, the substrate could overflow its container.
- Dry product must be placed under plugs. The plant could be destabilized after AQUAKEEPER hydration.
- It is preferable to mix dry product in an irrigated soil or substrate.
- On the other hand, hydrating the product in a non irrigated soil is recommended so that it becomes active immediately.

Additional information:

- The higher the water temperature, the faster the absorption of water by AQUAKEEPER.
- All the products in AQUAKEEPER line have high absorption capacity. If the product is spilled, be sure not to rinse it with water. The ground would become extremely slippery. Shovel or vacuum it up.
- To clean equipment, blow off the powder traces with compress air.
- Avoid contact with eyes and skin (use of gloves and goggles is recommended).