



The Science behind Our Product

PennzSuppress® D is a concentrated blend of unique, asphaltenes-free resins that thrive under the stresses that shear other chemistries. Specifically formulated to provide optimum penetration and bonding when applied to aggregates, soils, and ores, PennzSuppress D can be easily applied over a variety of road types to provide long-lasting performance. The superior cohesion and elasticity provided by its unique binding agents allow. PennzSuppress D provide a durable, moisture permeable surface.

PennzSuppress® D is a patented dust control agent that is sold in a concentrate form and diluted with water for application to roads and other surfaces where airborne dust is undesirable. The dilution rate is typically between four and ten times, depending on the circumstances. For example, more water may be used in arid environments to lower the viscosity and improve the product penetration into the road surface. The thickness of the PennzSuppress D resinous coating and depth of its soil penetration can be controlled by varying the water: concentrate ratio, as well as the total volume of fluid used. The versatility of this product allows the applicator to design the application to provide the highest efficiency depending on prevailing dust conditions, anticipated traffic and type of soil, as well as obtaining the greatest possible economy.

The key advantage of PennzSuppress D lays in its source specific ingredients. The primary active ingredient is a paraffin resin. An optimum blend of wetting agents, emulsifiers and dispersants further contribute to PennzSuppress D's superior performance, allowing for ready penetration of the binding agents into the soil, easy emulsification with water and increased spreading power of the diluted mixture.

The formula also contains components that aid in the binding properties of the product once applied. In the manufacturing of PennzSuppress D considerable energy is used to shear the resin into small microscopic sized globules so that the emulsifiers can be mixed in, to coat the resin globules. This allows them to stay in suspension when mixed with water. The water acts as a carrying agent, allowing PennzSuppress D to penetrate into the road surface. As the dilution penetrates, the water evaporates allowing the active ingredients to agglomerate the fine dust-producing particles and bind the aggregate to build a durable, water-resistant surface.

The carefully-crafted science that holds the soil particles together means PennzSuppress D also works exceptionally well at stabilizing road base aggregate materials, reducing soil erosion and protecting vegetation from blowing dust and sand. These active ingredients have the added benefit of creating a more predictable driving surface in wet conditions which minimizes the detrimental effects of spring season freeze/ thaw cycles.

Because it is formulated for use in and around sensitive habitats, PennzSuppress D is an environmentally sound solution for dust control and soil retention needs.

Effective and Eco-friendly

PennzSuppress D reduces dust-related health and environmental concerns, and aids in complying with clean air and water requirements. It is environmentally safe and has been recognized and/or certified by numerous government agencies. PennzSuppress D is the first dust suppressant to be certified by the California Environmental Protection Agency for the water and air quality benefits provided by the product. Environmental attributes of PennzSuppress include the following:

- *Non-carcinogenic*
- *Non-hazardous to Ground Water*
- *Non-inhibiting to Plant Growth*
- *Low Aquatic Toxicity*
- *Non-Toxic to Aquatic Sediment*
- *Non-Hazardous Waste*
- *Effective in Reducing Dust*

The non-water soluble characteristics of the petroleum resin allow PennzSuppress to be used safely without contributing any constituents that would adversely impact ground water. Testing conducted on the product to determine its toxicity to vegetation was also used to confirm that PennzSuppress is an effective erosion control agent which helped gain additional certification by the Texas Transportation Institute at Texas A&M University.

For inquiries, please contact our sales department at 512-267-3553

www.pennzsuppress.com