

Dust Control using Magnesium Chloride



Unpaved surfaces – parking lots, gravel roads, campground roads, baseball fields, landfills,

Controlling dust has multiple benefits to the surface. Dust is obviously fines that are so pulverized and light that those small particles are able to float briefly in the air when agitated by wind or traffic. Those fines are necessary to secure the larger aggregate pieces as part of the entire gravel roadway matrix. If you remove either the fines or the larger pieces, the roadway will quickly deteriorate and fail from traffic or washout. While we call it dust control and dust complaints are usually the reason that dust control is required, a good preventive maintenance approach employs grading and treating surfaces for dust which will stabilize the surface and exponentially extend the life and condition of the surface.

Fine dust lost from an unpaved surface not only opens the surface to wind and water erosion, it will also plug air filters of engines; will cause premature wear; and creates unsafe visibility resulting in accidents.

MAGNESIUM CHLORIDE DRY



In dry form, magnesium chloride is a very effective and economical dust control choice and option. Magnesium chloride is intensely hygroscopic which means it will draw and hold exponentially times its weight in water when fully saturated and then it will continue to hold that moisture indefinitely. The longer that a treated surface remains dry, the more compaction and penetration that will be realized which helps the treatment last longer. Always try to plan dust control applications with an eye towards future weather. For dry applications, the best time to apply is immediately following a rain because the moisture in the surface will draw the magnesium chloride into the surface quickly and effectively.

In most climates and regions, our dry magnesium chloride products will hydrate overnight from atmospheric moisture. In some very dry and arid regions, a small amount of supplemental water may be necessary to help the product get the moisture that may not be available from the atmosphere.

HOW TO APPLY:

Application is simple. For larger projects and roadways, a road sander is the usually best option for scattering the magnesium chloride dry.



In the images below, you see a service road in a rail transfer yard and a service road located in a vineyard after it has been treated. This treatment had a significant improvement in crop yield as the dust was carrying pathogens and microbes onto the crop, and, the fine dust was blocking photosynthesis and inhibiting the production of the fruit. Dust treatment with our magnesium chloride flakes completely ended these problems.



The mining industry has struggled with dust challenges for decades. It is largely the nature of the business when digging and moving materials. With heavy vehicular traffic and little down time, mining

haul roads must remain open and with good visibility for safety. Nobody wants to be behind the wheel of 350 ton dump truck when it drives over the side of the pit road from poor visibility.

