

## **DustLess™ – Why It Works & How it Works**

The least expensive dust control method is DustLess™. One needs to know the capabilities and functionality of the product so that the customer can be properly educated. If the customer only gets a price quote, with no education, the jobs will be few and far between.

DustLess™ does not function like water or chlorides:

1. Water surrounds individual soil and/or dust particles thus "floating" the individual particle. When a particle is floated by application of water, there is a space in between each soil particle (a space filled with a microscopic amount of water). If enough water is applied to eliminate all dust, then every soil particle is separated by water. This separation reduces friction because the particles no longer touch the adjacent particle directly. This phenomenon commences immediately upon reaching optimum moisture content (OMC) in the soil. Once you exceed OMC, even by a very small percentage, you have mud. If you do not reach OMC, then you do not have complete dust control. Wetted soil sticks to stuff, it tracks, it has low coefficient of friction, and it immediately begins to dry out (all bad things). It provides a very short effective life span and many reapplications are needed to created at best modest dust control that is constantly changing in effectiveness.
2. Chlorides work by drawing moisture out of the air, thus dampening the soil. Same problem as water, not enough chloride and you do not have complete dust control. Too much chloride and you have hard and soft spots in the soil, some areas over-treated and some areas undertreated. Any amounts of chloride and you have corrosion of vehicles and equipment; and you have the health issue of breathing in dried, chlorided soil as the control goes away. Chlorides require several applications per year. Chloride applications are only effective if there is substantial moisture/humidity in the air. A heavy rain event washes away chloride dust control requiring reapplication. Continual use of salts (chlorides) over extended periods of time kills adjacent vegetation, and pollutes ground water.
3. **DustLess™ works differently.** It is specially formulated to absorb into the individual soil particles rather than surround and "float" the particle as does water. By absorbing in and not surrounding the particle, the individual particles remain in direct contact with each other keeping the soil surface firm, good coefficient of friction (traction), no stickiness, thus no tracking. The product is not alkaline, it is not acidic, it is non-corrosive, and non-hazardous. Effective dust control lasts for about one year (9 - 15 months). Watering is never required. Climate or humidity are not factors. It does not wash away or dilute in rain events. Reapplications after the initial application are done at a much lower rate to renew highly effective, long lasting control.

In the long run (i.e.: over a few years) the DustLess™ applications are always cheaper, are always more effective, and are always better from a health point of view. All this with no negative environmental issues and no corroded equipment either.