

# DustSet

## Wetting Agent & Dust Suppressant



### *Dust control for all soil types!*

Sierra has produced a universally effective wetting agent/ dust retardant under all soil conditions. This effective new product, once applied will increase water filtration and break down surface tension allowing substantial savings in water and reapplication costs.

In the case of hydrophobic soils where the particles are apparently coated with substances that repel water, much like wax, can now be broken down and made to absorb water more freely by the treatment of the Sierra Wetting Agent - DustSet

Our product is a Nonionic surface active agent based chemical that is non corrosive, unlike the majority of chloride based wetting and suppressive agents available on the market, our product is not damaging to equipment and will not effect re-growth in the treated area, thus making the Sierra product non-hazardous to the environment.

In today's world of more stringent air quality regulations being implemented by the EPA, and the strict standards allowable for dust levels, this product will greatly assist production and lower costs. Sierra's wetting agent will stabilize the soil against wind erosion.

The Sierra approach to dust control involves the application of synthetic compounds that physically bind the dust particles together, by breaking the surface tension and attracting moisture to the larger aggregate. Some of these materials produce a surface that resembles pavement, but at a lower cost.

The Sierra Wetting Agent performs best when blended with the top two to four inches of roadway material, followed by compaction.

#### **USES**

- ✓ **Break down of Soil Surface Coating** – for use on construction roads. Allows for better acceptance of water into soil.
- ✓ **Wetting Agent** – Which allows improved water retention within soil particles.
- ✓ **Binding Agent** – Allows dust particles to bind, reducing fugitive dust.
- ✓ **Non Chloride base** – excellent for plant regeneration. Will not promote rust in vehicles.

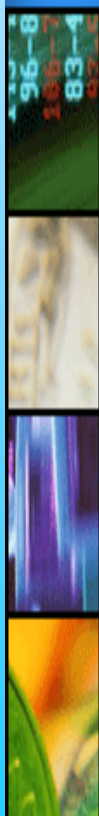
### *Control strategies for construction sites*

Major construction projects often leave large areas of disturbed earth unprotected for long periods. These sites can be a significant source of fugitive dust as well as water erosion. Since construction sites are usually located in or near cities, they can be major contributors to overall air quality problems for the metropolitan areas and are likely to be addressed in plans for meeting EPA air quality standards.

The goal of Sierra is to produce a product that is easy to integrate into the soil areas and work with the contractors needs and requirements for compliance with authorities. Our product will allow the contractor to complete the construction project as quickly as possible and re-establish protective cover, either by vegetation or pavement. **(This would be difficult using Chlorides)**



Fugitive Dust from untreated roads can produce tons of particulate matter causing air pollution problems.



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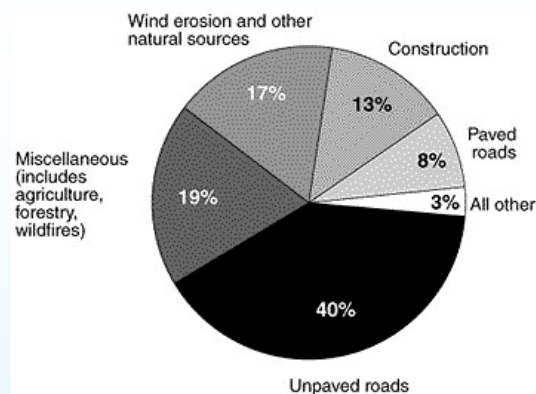
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Several products are available from other manufacturers using Chloride Salts for controlling dust from unpaved roads. These products work by attracting moisture, binding dust particles together, sealing the surface, or some combination of these effects. Chloride salts are the first category of dust suppressant. These chemicals are moisture attractants, which work by drawing moisture out of the air during periods of high humidity, particularly at night. They also reduce the evaporation rate of water during hot dry periods. This tends to hold the dust on the road surface, although there is no physical bonding.

Chlorides are the most effective moisture attractants. Sodium chloride, or common salt, is cheaper but not very effective alone. All chloride salts are corrosive to metals, toxic to plants, and irritating to human skin. They should be used with care. Also, they may result in a slippery coating on the road surface. This is not usually a problem on a gravel surface, but care should be taken to avoid spreading the solution on bridge floors. There is potential for some off-site plant damage during periods of heavy rainfall.

The chart shown to the right indicates the various sources of dust particle emissions. The use of **Sierra DustSet** can greatly reduce the incidence and volume each year.



*DustSet Wetting Agent/ Dust Suppressant is available in:*

**20 litres, 200 litres.**

**Dosage rates are 0.01- 0.02% v/v in a water spray.**

### CHARACTERISTICS

Appearance	Viscous Liquid
Specific Gravity	1.0
Flashpoint	n/a
Characteristics	Non Hazardous, non corrosive
Use	Wetting & binding agent. Dust Suppressant

All information given by Sierra (Aust) Pty Ltd is offered in good faith and is to the best of our knowledge true and accurate. However since conditions of use are beyond our control, all information relevant to dosage is offered without warranty or guarantee and should not be construed as a recommendation to use any of our products in violation of any patent rights or in breach of any provisions of any Act or Regulation, Federal or State. In particular the information contained herein should not be construed as a representation that the product is suitable for any particular purpose or application.

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