

Earthbind™ Dust Suppressant and Soil Stabilizer

Product Overview

Earthbind is a quality, versatile, dust control agent. Diluted in water, Earthbind can be applied to roads and other environments where airborne dust is unwanted. In addition to suppressing dust, Earthbind can be used to reduce soil erosion and protect vegetation from blowing sand.

Earthbind consists of binding agents that hold soil particles together to prevent them from becoming airborne. Our special formula ensures the application will properly penetrate and bind with the soil. Earthbind mixes with water quickly and easily, and remains stable in both the concentrated and diluted states.

Benefits

Earthbind dust suppressant provides:

- Superior dust cohesion and suppression
- Excellent soil erosion prevention
- Quick application without road closures
- Efficient dust control under a variety of conditions
- Lasting effects when applied as directed

All components of Earthbind are considered:

- Non-hazardous
- Free of asphalt or solvent
- Non-flammable
- Non-carcinogenic
- Not harmful to aquatic life

Application

Earthbind is sold in a concentrated form that is diluted with water prior to application. It can be used at water-to-product concentrations of 3:1 to 12:1 depending on the soil type, traffic flow and other environmental factors. Some soil types require only a one-time heavy application while others require several light applications. Our experts can recommend the appropriate concentration given your situation.

For maximum results, Earthbind is best applied with a CRC spreader bar, but can also be applied with a water truck. The thickness of the application and depth of its penetration into soil can be controlled by varying the concentration levels and the total volume of product used.

Earthbind is appropriate for use on soils, roads, parking lots, mining areas and other environments where dust needs to be controlled. It can also be used as a soil compacting agent.

Earthbind™ Safety Information

When dust control agents are applied to roadways, forest service roads and agricultural land, the effects the agent has on wildlife and on humans is often a concern. EnviRoad has specially formulated Earthbind to ensure the highest level of safety.

With trends continuing towards strict health, safety and environmental regulations, Earthbind is an efficient and effective method to reduce dust-related environmental and health concerns. Plus, it aids in complying with clean air and water requirements by reducing airborne dust and preventing erosion.

Traditional dust control products are made of potentially carcinogenic petroleum oils and are diluted in highly volatile and flammable solvents. Others contain chemicals that are reported to be corrosive to metal, vehicles or other equipment that may come into contact with the treated areas. Some contain soluble anions that are harmful to aquatic organisms or become absorbed by plant roots. Once absorbed, anions are transported to leaves and twigs where they eventually accumulate to toxic levels. Anions can also raise the osmotic concentration of the soil, thereby diminishing the availability of water to plant roots and retarding metabolic functions, photosynthesis and growth.

Other dust control products are water-soluble. Rainfall can cause the product to wash-off into surface waters. When the product reaches these waterways, it reduces light penetration and can lead to the reduction of photosynthesis by phytoplankton, lowering the oxygen balance and interfering with aquatic life.

Earthbind is considered a safe, long-lasting and economical solution for base stabilization, and dust and erosion control. The individual products that are used to create Earthbind are all classified as non-carcinogenic and have tested to be safe for humans and the environment. Once applied and with adequate time to set-up, Earthbind is resistant to corrosion and does not re-emulsify when it rains.

When used properly, Earthbind is considered:

- Non-hazardous
- Free of asphalt or solvent
- Non-flammable
- Non-carcinogenic
- Not harmful to aquatic life

Often there is a concern for fish since silt run-off from roads often ends up in nearby waterways. Earthbind proved to be of “low concern” in a fish toxicity test since, according to EPA standards, it was given a rating of LC_{50} . A U.S. Fish and Wildlife Research Information Bulletin (#84-78) classifies LC_{50} values of 100 – 1000 mg/l as “practically non-toxic.” Earthbind exhibits a low level of toxicity towards fish even at a very high concentration of product—higher than would ever be used in the field.

Earthbind™ Fish Toxicity Test

Summary of Sample/Test Information

Client Name: EnviRoad LLC
Test Material: Earthbind 100 dust suppressant
EA Accession Number: AT2-056
EA Test Number: TN-02-164
Test Species: *Oncorhynchus mykiss*
(rainbow trout)

Test Concentration (a) ppm	96-Hour Percent Survival
Control	100
15,000	100
20,000	100
30,000	100
50,000	95
75,000	40

96-Hour LC50 as ppm product (a) 71,048
(95% confidence limits) (63,907-83,070)

(a) Concentrations reflect a 1:4 dilution of original ("as received") product.

Summary of Sample/Test Information

Client Name: EnviRoad LLC
Test Material: Earthbind 100 dust suppressant
EA Accession Number: AT2-056
EA Test Number: TN-02-153
Test Species: *Pimephales promelas*
(fathead minnow)

Test Concentration (a) (ppm)	96-Hour Percent Survival
Control	100
15,000	85
30,000	80
60,000	69
90,000	15
120,000	30

96-Hour LC50 as ppm product (a): 59,354
(95% confidence limits) (43,851-82,921)

(a) Concentrations reflect a 1:4 dilution of original ("as received") product.