Environmental Technology Verification

CANADIAN ETV PROGRAM VERIFIED

Soil Sement®

Technology Fact Sheet for Midwest Industrial Supply Inc.



Performance Claim

Midwest Industrial Supply Inc.'s Soil-Sement®, when applied in accordance with the manufacturer's instructions, will:

- 1. on unpaved roadways in California's San Joaquin Valley,
 - a. achieve at least 95% suppressant efficiency on fugitive dust (PM_{10}) for three months after application and at least 80% after 11 months, and
 - increase the R-value in the range of 30-40% when measured by ASTM Test Protocols D1883 and D2844, and calculated in accordance with the AASHTO Guide for Design of Pavement Structures, 1986; and
- 2. in acute toxicity tests, yield LC_{50} 's for rainbow trout (96-hr) and *Daphnia magna* (48-hr) of at least 7,000 ppm and 21,000 ppm, respectively.

Technology Application

Soil-Sement[®] is used in widely varying climatic conditions and soil types and in diverse industries, from landfills to mining, wineries to steel mills, development/construction sites to power plants, and intermodal facilities to military installations.

... to a mining haul road ...



... and to a landfill at a steel mill.



Soil-Sement® applied to a construction site ...





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Performance Conditions

The claim is considered valid when **Soil-Sement** is applied in accordance with the manufacturer's instructions, to soils of the type found in the San Joaquin valley and on roads with traffic density in the order of 100 vehicles per day.

Technology Description

Midwest Industrial Supply Inc.'s **Soil-Sement** is a polymer emulsion that is specially-formulated as a non-toxic erosion and dust control agent for unpaved roadways and/or shoulders and other municipal/industrial exposed-earth sites. It requires no US EPA reporting since the formulation contains no heavy metals, pesticides/herbicides or other toxic compounds. The design concept also allows changing the application method, intensity or frequency to meet regulatory requirements while remaining within the customer's budget.

Verification

The verification of the performance claim was carried out by ESG International, of Guelph, Ontario using data from testing performed by:

Desert Research Institute - suppressant efficiency; Western Technologies Inc. - R-value; and B.A.R. Environmental Inc. - toxicity.

The evaluation was conducted in accordance with the ETV Program's Air Emission Control Technology Verification Protocol.

What is the Canadian ETV Program?

The Canadian Environmental Technology Verification (ETV) Program is delivered by GLOBE Performance Solutions under a license agreement from Environment Canada. The Canadian ETV Program is designed to support Canada's environment industry by providing credible and independent verification of technology performance claims.

For more information on Soil-Sement® please contact:

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