Midwest's Guided Self Apply Program An Alternative to Chlorides for Village and Community Roads



The Guided Self Apply Program

Midwest's Guided Self Apply (GSA) Program equips the village or community's maintenance department with all the tools, training, and technical support necessary to properly manage dust control on their roads while utilizing their own equipment and staff.

Midwest's Guided Self Apply Program is based on decades of experience defining and refining effective dust control programs across the county. Midwest has found that maintaining unpaved village and community roads poses specific challenges that require a customized dust control program to be successful and economical. As the leader of the industry, Midwest confidently and strategically takes on these challenges via our Guided Self Apply (GSA) Program.

Unlike chlorides and other temporary, reactive dust control products, this holistic user-friendly program is designed to proactively:

- minimize dust emissions
- improve the performance and durability of the road
- reduce maintenance activities and costs
- prevent the loss of fines and gravel

EnviroKleen

EnviroKleen® is a patented, two-part system designed for the delivery of high-performance fines preservation. The system consists of a synthetic carrier fluid and a viscoelastic KleenBinder®. The synthetic carrier fluid is engineered to penetrate and permeate deep into individual aggregate and soil particles where it distributes its powerful KleenBinder. The KleenBinder creates a durable, bound surface that locks fines in and proactively maintains the as-constructed state of the road. EnviroKleen is eco-friendly and completely safe on the natural environment.

EnviroKleen has proven its capabilities in the harshest, most extreme situations including artic haul roads, oil and gas exploration sites, gravel runways, industrial facilities, and military sites as well as in the most environmentally sensitive areas such as wetlands.



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An Improved Alternative to Chlorides

Due to budget constraints, villages and communities often use watering programs and/or chlorides to suppress dust emissions. Unlike EnviroKleen, these temporary solutions fail to address the root cause of the dust emissions and provide little value outside of short-term dust control.

The following advantages and performance benefits can be realized with EnviroKleen:

- Long-Lasting Performance EnviroKleen's constantly active KleenBinder keeps the active ingredients at the surface and builds ground inventory after each application.
- Does Not Leach Out EnviroKleen is non-soluble and will not wash away from the surface during heavy rain
 events compared to products lacking a binder agent
- Environmentally Friendly EnviroKleen does not negatively impact the environment
- Non-Corrosive EnviroKleen is non-corrosive and has passed Boeing's strict corrosion testing
- Effective In All Climates EnviroKleen does not have climate limitations such as humidity and precipitation
- Improved Surface Stabilization EnviroKleen's binder uses adhesive and cohesive mechanisms to create a tightly bound hardened surface with improved strength and stability maintaining the as built condition
- Applied Neat No dilution or mixing required
- Preserves Gravel EnviroKleen locks gravel and fines to the surface minimizing gravel replacement
- Freeze/ Thaw Resistance EnviroKleen is not impacted by freeze/thaw cycles



A Proven Program

Recently a municipality adopted Midwest's GSA Program as a replacement to using chlorides due to the negative environmental impact and resident complaints. The municipal engineers selected their highest priority and problematic roads to trial the GSA concept. Midwest reviewed the details of the selected roads including traffic volume, traffic type, road condition and speed to develop a custom application plan based on decades of experience, testing and product knowledge.

Midwest collected Visible Emissions Observations (VEOs) and silt load samples at two of the main roads to verify and quantify the effectiveness of the GSA Program. An untreated silt load sample was collected from each road to establish a baseline silt level. Three follow up samples were collected from both treated roads throughout the season to evaluate the reduction in potential emissions.

Three months after the initial EnviroKleen application, both sampled roads maintained a **greater than 95% reduction in potential dust emissions** as determined by silt load testing and confirmed by VEOs. The maintenance contractor did not perform any maintenance on the treated roads during that period and staff could be allocated to other maintenance needs.



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Impact to Residents

Dust emissions are not only a nuisance, but they are a serious health and safety concern to residents, wildlife, and the surrounding environment. Fugitive dust emissions can severely impact residents in the following ways:

- creates or aggravates respiratory issues
- creates visibility issues that may lead to accidents
- harms vegetation and crops

- keeps residents indoors
- damages property and vehicles
- lowers property value



Don't Take Our Word For It Listen to the Residents

In the case of the county discussed above, several residents have reached out to the county to express their satisfaction and approval of EnviroKleen and the newly adopted Guided Self Apply Program.

"I have not been able to sit outside due to the crazy dirty dust that covers everything in my carport... not only was the dust awful but so dangerous.

I sat outside last evening and just smiled when a car went down and NO DUST. Please keep my road in the books to continue to be maintained." "The treatment certainly does improve our environment. We live on the corner of (dirt road) and

Road.

Thank you!! Please keep this treatment going."

