

# EnviroKleen® and EK35®

## Synthetic Organic Dust Control®

### Tough on Dust, Easy on the Environment

Runway or roadway, concert venue to construction site to unpaved open area, if the problem is fugitive dust or an unstable surface, the antidote is Midwest's EnviroKleen or EK35. Like all Midwest products, these powerful synthetic organic fluids are reliably consistent and consistently reliable month-to-month, season-to-season, and year-to-year.

Created in Midwest's own laboratory, EnviroKleen and EK35 were the first Synthetic Organic Dust Control products on the market. Unique in the industry, both products have binder systems that capture fines and keep them locked into the surface, preventing dust from escaping. We formulated both products to be as gentle on the environment as they are tough on dust and unstable surfaces.

#### Vital statistics

- EPA-verified safe for people and the environment
- EPA-verified effective for reducing PM10 and PM2.5
- Certified non-corrosive by Boeing
- Creates pavement-like strength; enhanced by traffic
- Can be reworked without reapplication
- Does not evaporate or leach out of the surface
- Performs well at extreme temperatures
- Can be stored at temperatures down to -50° F
- Readily biodegradable in natural environments
- Works with all types of soils and aggregates

*EnviroKleen and EK35 are ranked first in all categories tested by the US Army Corps of Engineers.*



## Why EnviroKleen and EK35?

Treating a symptom like dust is a temporary band-aid. Midwest goes after the *root cause* of a problem like surface instability and works tenaciously and without compromise until we find the optimal solution. In this case, the solution is the Synthetic Organic Dust Control and the binding technology we invented for use in the manufacture of EnviroKleen and EK35.

EnviroKleen is formulated with a polymeric binder; EK35 with a resin binder made from renewable resources. Both products are superior choices for industrial, construction, and municipal applications. They quickly penetrate dust and remain actively effective on clay, sand, gravel, limestone, and most native soils regardless of the weather or how severe the traffic. That is because their binder systems interlock and durably bind surface aggregate and fines together through both cohesive and adhesive

mechanisms. As fines are generated, they are captured, preventing them from escaping as dust. EnviroKleen and EK35 are cost-effective for controlling PM10 and PM2.5 from open fugitive dust sources, and unlike other available products they will not track onto public roadways or stick to vehicles. Both products provide longer-lasting performance and require fewer applications than other dust control and surface stabilization methods - regardless of season.



*Managing fines with EnviroKleen and EK35 can save tens of thousands of dollars annually during the lifecycle of a surface.*

## Compare EnviroKleen and EK35 to Other Dust Control Methods

Performance Benefits	EnviroKleen and EK35 Synthetic Organic Fluids	Water	Road Salts <sup>1</sup>	Asphalt Emulsions	Petroleum Resins	Lignin
Longer lasting	●			●	●	
Year-round protection	● <sup>2</sup>		●			
Passes EPA static sheen test	●	●	●			
Non-petroleum product	●	●	●			●
Colorless	● <sup>2</sup>	●	●			
Not water-soluble/cannot be diluted	●					
No poly-nuclear aromatic hydrocarbons (PAH)	●	●				●
Will track				●	●	●
Storm drain risk	Low	Low	High	High	High	High

*Conventional dust control methods can create greater problems than the dust itself—lingering environmental and health concerns, for example.*

*Alternatives like water provide short-term solutions that involve labor-intensive, multiple applications.*

<sup>1</sup>Road salts are sodium chloride, calcium chloride, potassium chloride, magnesium chloride and ferrocyanide salts.

<sup>2</sup>EnviroKleen passes the EPA static sheen test and is colorless.

## Easy to be green

With chemists in our lab and experts on our customers' worksites, Midwest has the home-grown ability to manufacture products that will not harm the environment and, in many instances, will help it. Our chemists think green from source materials to formulation and from product to application.

### Special Delivery — The E-Sprayer™ System

The "E" in E-Sprayer System, an efficient product-dispensing solution, stands for EnviroKleen and EK35, the products for which it was specifically designed. Portable, versatile and compact, the E-Sprayer can be mounted on any light-duty truck from an F-150 flatbed one-ton trailer to a military Humvee. Powered by a 4.7-hp Diesel/JP8 fuel electric start engine and Gorman-Rupp pump, the E-Sprayer requires only one person to operate and facilitates universal application with an 8-foot spray bar. Flow is easily controlled with the throttle or motorized regulator.



## Tested and verified - independently

Midwest believes in proving claims, rather than just making them, so our clients can be sure they are getting what they pay for from both performance and environmental perspectives.

- US EPA ETV\* test data verifies that EnviroKleen and EK35 are safe for people and the environment as well as effective in suppressing PM10 and PM2.5 levels. No other synthetic fluids have achieved this designation.
- EnviroKleen and EK35 comply with requirements of the Clean Water Act and National Pollution Discharge Elimination System and realize fines preservation for surface stability and dust control.
- The synthetic organic fluid in each product meets the criteria for the term synthetic as established by the US EPA for sediment toxicity, biodegradability, PAH content, aquatic toxicity, and being oil-sheen free.
- The non-corrosive properties of EnviroKleen and EK-35 have been certified by Boeing Document D6-17487, the most stringent corrosion standard in the United States.

The protocols Midwest uses in testing its products under US EPA guidelines are 200 times more stringent than those used by our competitors. Proof of these verifications and certifications are available any time from Midwest. Before considering other dust-control solutions, remember to ask for such proof to protect yourself from false claims.

*\*U.S. Environmental Protection Agency's Environmental Technology Verification Program*

## Choice of the Military: EnviroKleen and EK35 in Action

Clear vision is a military necessity, but the conditions in which our forces operate fly in the face of that need. Dust, sand and dirt obstruct vision and also attack and weaken critical vehicle and aircraft parts. The US Military chooses EnviroKleen and EK35, ranked first in all categories tested by the US Army Corps of Engineers, to enhance safety and visibility for CH-46 Chinook and CH-53 Sea Stallion helicopter pilots.

## Preserving Gravel Runways in Cold Regions

EnviroKleen and EK35, the backbone of Midwest's Fines Preservation programs, are able to stabilize gravel runway surfaces, increase their strength, and preserve service life by keeping the fines bound to the surface. Applied in extreme temperatures, both products are applied neat and remain active and re-workable. The result? Fines preservation programs can achieve an 80% decrease in dust levels for up to four years and a decrease in runway lifecycle costs of 70%, or up to \$40,000 in annual savings. As many as two- to five cubic meters of fines are saved at every take-off and landing on treated runways. Learn more about our gravel runway resources at [www.gravelrunway.com](http://www.gravelrunway.com).

## If the shoe doesn't fit...

One size fits all does not always make for a good fit; unique problems require unique solutions. Midwest is a particle-control pioneer, not a me-too company. Our product development begins with a challenge and ends when we produce a solution that proves its worth in the field. Off-the-shelf is fine when it works, but when it does not, Midwest has the capability and tenacity to engineer a formula for your specific needs.

## More reasons to choose Midwest

Midwest is the world leader in environmentally-sound, dust-control technology for every application where fugitive dust is a problem. We bring our customers more solutions, documentation and support than any other manufacturer. On a daily basis, we challenge ourselves to become even more accessible problem solvers so we can set a new industry standard for proactive and responsive service. Pushing the envelope is part of our corporate DNA, and we strive, always, to develop cutting-edge processes, products and services; stay on top of the learning curve, and educate our customers for our mutual success.