

# **Ec0Suppressant**

Premium cutting edge eco-friendly high-performance dust suppressant liquid. Provides superior dust suppression while saving costs and increasing on-site safety.

# **Description:**

EcoSuppressant dust spray is a premium high natural organic content polymer liquid product aimed at road dust management applications for mines, farms and rural roads, designed exclusively by ARC Innovations, incorporating existing eco-friendly technologies. It provides vast cost savings while significantly increasing on-site safety. EcoSuppressant can simply be sprayed onto any type of soil surface whether it has been treated previously or not. It gives instant and outstanding results.





#### **Mode of Action:**

ARC Innovations has exclusively designed unique and synergistic operating technologies in Ec0Suppressant. Ec0Suppressant is a highly concentrated organic polymer liquid which has neutral pH properties. It is intelligently formulated with technology allowing the product to perform better than most conventional technologies while remaining environmentally friendly. It allows for unsurpassed dust suppression and soil binding properties.

### **Technology:**



One phase design component has a better hydrophilicity therefore the molecules are closer to the water phase and the other phase design component is closer to the air phase. This ingenious stepped phase design slows the diffusion of air and decreases the loss of water molecules, which ensures better foaming properties. Because the surface of coal and sand dust is usually electronegative, there is no electrostatic repulsion force between Ec0Suppressant and the coal or sand dust surface, so the Ec0Suppressant molecules can be absorbed on the surface of coal and sand dust more easily than competing technologies. Since one phase component can carry more water molecules, the synergistic effects of the various Ec0Suppressant molecules rapidly wet dust in a dramatically shorter space of time.

## **Organic Polymers:**



Organic polymers form key structural materials in the support tissues of vascular plants, woods and some algae. They are particularly important in the formation of cell walls, especially in wood and bark, because they lend excellent strength and rigidity, and do not rot easily. Organic polymers are one of the most abundant organic polymers on the planet. EcoSuppressant organic polymers are derived in a proprietary and eco-friendly process from natural and sustainable origins. The organic polymers in EcoSuppressant are specially stabilized and formulated to act as natural glue to bind fines and soil aggregates together, and the organic polymer traps moisture which retards evaporation thus prolonging the wetting effect. The binding action is further uniquely aided by presence of natural sugars which are derived from matrix polysaccharide breakdown.

#### Plasticizer:



EcoSuppressant contains precisely calculated amounts of organic polymers which acts as a disperser in a matrix of fines and clay to disperse clay particles effectively for improved plasticity at lower moisture levels, leading to greatly reduced abrasion and erosion. This allows for denser and firmer compaction of the road surface. As an ongoing benefit, EcoSuppressant organic polymers continually leach into the road matrix



## **Charge Attraction:**

The particles in soil naturally have the same charge on a microscopic level. As with a magnet, when applying two of the same polarities, the magnets repel each other. EcoSuppressant incorporates ARC Innovations developed charge shifting technology which intelligently alters charges to form a natural and powerful attractive bond, just like when the magnet is flipped around it naturally attracts. Over billions of microscopic charges this forms a powerful and lasting bond.



#### Soil Penetrating Agents:

ARC Innovations has developed unique and soil penetrating agents which lower the surface tension between liquid and solid particles, acting as highly efficient wetting agents. These specially designed agents are chosen for their scientific ability to work synergistically and more effectively together than existing technologies. Effective wetting of dust particles suppresses the tendency for fines to become airborne, and aids very significantly with compaction.



## **Cost Savings:**

EcoSuppressant dust spray offers savings in significantly reduced water usage and road maintenance, improved vehicle tyre lifespan and fuel consumption, reduced vehicle wear and tear as well as increased uptime. For farmers there is a massive reduction of dust formation on crops.



#### **Increased Safety:**

EcoSuppressant dust spray improves driving conditions, visibility and braking ability, and reduces occupational hazards such as silicosis, asthma and cancer.



## **Environmentally Friendly:**

EcoSuppressant dust spray is completely environmentally friendly, biodegradable and manufactured from completely renewable resources.

## **Benefits Summary:**



Savings: The correct application of Ec0Suppressant will provide the following savings:

- Reduced water usage
- Improved crops
- Road maintenance
- Better safety
- Improved driving conditions
- Enhanced vehicle tyre lifespan
- Lower fuel consumption
- Reduced wear and tear on vehicles
- Increased uptime
- Improved operating hours
- Biodegradable
- Made from renewable sources
- Reduced occupational hazards such as silicosis, asthma and cancer



# **CONTACT DETAILS**

# CONTACT NUMBER(S)

Cyril Attwell (0784563833) / Hassim Osman (0827864003)

# **ADDRESS**

82 Bonnyvale road, Norton Home Estates Benoni, 1501

#### WEBSITE

https://www.arcinnovations.co.za