# ICSI INC.,

2235 E Flamingo Rd. #126 Las Vegas, NV 89119 USA Cell: (323) 582-2222 / (725) 219-2319

#### LETTER OF INTRODUCTION

ICSI Inc. is a technology-based company with many years of experience in research and product development, has created the **dust control project** soil bonding material as the most effective and environmentally friendly organic agent to be utilized as soil stabilizer for fugitive dust control solution. The Dust control project is completely an eco-safe and biodegradable material to be used to stabilize and solidify any soil or aggregate as well as erosion control and fugitive dust suppression under any condition.

ICSI Inc. recent advances in chemistry, processing techniques, and analytical instrumentation have allowed creation of variety of new types of Organic soil binding product formulas and new technology applications to be realized.

These advances led to the revolutionary development of nanotechnology into Dust control project's superior performance.

Once applied to the disturbed soil or moving sand/dust, Dust control project unites forming bonds between the particles. The key advantage of Dust control project originates with its long, nanoparticle molecular structure that link and cross-link together.

As the water evaporates from the treated soil, a durable but water soluble matrix of solid-mass is created. Once cured, Dust control project becomes completely transparent, leaving the natural landscape to appear untouched.

Dust control project results are based on the application rate used. Modest application rates are useful for dust suppression and erosion control by creating a three-dimensional cap or surface crust. Heavier rates can generate qualities similar to cement. By adjusting the application rate, Dust control project can remain effective from weeks to several years. Most importantly, Dust control project is a biodegradable organic product that is completely environmentally safe to use.

ICSI Inc. products have been rigorously evaluated and their performance verified by Many satisfied contractors performing soil stabilizers and dust control agents.

Dust control project's advanced new technology is modernizing the way we stabilize soils and aggregates in addition to controlling dust and erosion for a whole new environmental concern generation.

Dust control project applications are extensive, ranging from simple backyard trails and construction sites to heavy-lift military cargo runways.

ICSI Inc. is dedicated to solving today's economically solving soil stabilization challenges throughout the world's commercial, industrial, and military markets.

For more information about Dust control project, please visit us online at www.ICSIInc.com or call 1-323 582-2222

Respectfully,

Fred Faramarzi PAGE 1 of 9

# Applications & Uses Examples

**Unpaved Dirt Roads** 

Road Dust Control **Erosion Control** Road Stabilization

**Construction Sites** 

Fugitive *Dust Control* **Erosion Control** 

Road Stabilization

**Heavy Haul Roads** 

Road Dust Control **Erosion Control** 

Road Stabilization

**Land Development** 

Fugitive *Dust Control* **Erosion Control** 

Silt Loading Control

Road Base & Sub-

Base

Road Base Stabilization Sub-Base Stabilization

Mud Suppression

**Unpaved Driveways** 

Driveway Dust Control

**Erosion Control** 

Soil Stabilization

Helipads & FARPs

Helipad Dust Control

LZ FOD Control Pad Stabilization

**Airport Taxiways** 

Airfield Dust Control Airport FOD Control

Soil Stabilization

**Recycled Asphalt** 

Road Dust Control Road Reclamation

Milling Stabilization

**Forestry Roads** 

Road Dust Control **Erosion Control** 

Road Stabilization

**Agricultural Roads** 

Road Dust Control Erosion Control

Road Stabilization

Mine Tailings

Tailings Dust Control Tailings Erosion Control

Tailings Reclamation

Storage & Stock Piles

Stock Pile Dust Control Stock Pile Capping

Stock Pile Stabilization

**Power Plants** 

Facility Dust Control

Stock Pile Capping Road Dust Control

**Border Patrol Roads** 

Road Dust Control

**Erosion Control** 

Road Stabilization

Hydroseeding

Hydroseed Tackifier

Hydromulch Tackifier

**Erosion Control** 

**Construction Parking** 

Parking Lot Dust Control Haul Road Dust Control Parking Lot Solidification

**Event Parking Lots** 

Parking Lot Dust Control

**Event Dust Control** Parking Lot Stabilization

**Road Shoulders** 

Shoulder Dust Control

Shoulder Erosion

Control

Shoulder Stabilization

Slopes & Berms

Slope Erosion Control

Slope Stabilization

Silt Containment

**Military Operations** 

**Dust Suppression** 

Soil Solidification Road Stabilization

**Defense Compounds** 

Suppress Fugitive Dust

Soil Stabilization

**Dust Prevention** 

**Military Training Sites** 

FARP Dust Control

Road Dust Suppression

Land Target Coloration

**Airport Infields** 

Infield Dust Retardant

Shoulder FOD Control Infield Dust Stabilization

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# Unique Product Advantages

Dries Flexible/Elastomeric (Not Brittle)
Biodegradable
Simple and Easy to Apply
Dries Transparent , brownish / Clear
Dries Completely
Non-Flammable & Non-Volatile
Non-Hazardous
Non-Corrosive & Safe for All Equipment
Safe to Walk and Drive on
Non-Regulated for Transportation (Land/Ocean/Air)
Ecologically & Environmentally Safe
Cumulative Effect with Maintenance
Dyes & Pigments can be Added for Color
Human, Animal, Marine Life and Vegetation Safe
Water Resistant (will rejuvenate with water)
Non-Tracking & Non-Transferable (Will not be picked up onto vehicles)
Non-Leaching (Will not continue to seep into the soil)
Ultraviolet Ray Resistant (Will not break down in sunlight)
Non-Dissipating (Will not wash away with water once cured)
Alkaline Soil Resistant (Will not break down in alkaline soils)
Self Mixes with Water for Diluting (Prior to applying to the soil)
PM10 & PM2.5 Compliant (Stops hazardous dust particles of 2.5+ microns in size)

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### **Application Equipment Examples**

Highway Accessible

Water Trucks All Wheel Drive Water Trucks Water Wagons "Water Pulls"

Mining Water Trucks

"Mining Pigs"

**Heavy Expanded Mobility Tactical Truck Tankers** 

Flat Bed Trucks with Tanks &

Pumps

In-situ road reclaimers In-situ soil stabilizers

Computerized Rate Control

**Distributor Trucks** Truck Mounted **Hvdroseeders Trailer Mounted Hydroseeders** 

Agricultural Tractors with **Towable Spray Bars** 

Agricultural Tractors with

**Towable Spray Booms** 

Water Trucks with

**Gravity Feed Spray Bars** 

Single Axle Water Trucks Military "DAV"

(Dust Abatement Vehicle)

Pick-up Trucks with **IBC Tote & Pumps** Towable Spray Tanks

"Water Buffalo"

**Truckbed Water Tanks** 

"Skid Sprayers"

Standard Hose & Pump

Hand Spraying Airplane Sprayers "Crop Duster" Helicopters "Water Drop"

ATV Towable Tank Sprayers ATV

Mounted

Tank Sprayers Watering Cans

### Anything capable of spraying water can be used to apply

ICSI Inc., 2235 E Flamingo Rd. #126 Las Vegas, NV 89119 USA Cell: (323) 582-2222 / (725) 219-2319

**Topical Traffic Area Application Overview** 

#### 1.) Prepare the Site

Soil Moisture: The site should be completely dry and free from water.

Weather: The site must be free from rain for a minimum of 72 hours after the application.

Temperature must be at least 40°F (4°C).

**Compaction**: Compact the site to a minimum of 95%. (per ASTM D 698 D 1557 modified Proctor Density).

**Drainage**: Contour and crown the site to provide for proper drainage.

Loose Aggregate: Remove any loose aggregate, soil or debris from the treatment area.

Pre-Wetting (Optional): Optimally, pre-wet the treatment area with water (only) to break the surface tension and

increase penetration depth. Pre-wet at a rate of 100 SF/gallon (2.5m<sup>2</sup>/liter) of water.

#### 2.) Prepare Application Equipment

**Spray Nozzles**: Set spray nozzles to the desired width, height and output rate.

Test equipment (off-site) if necessary.

Coverage: The spray nozzles should provide an even coat over the treatment area with each pass.

**Spray Rate**: Set the spray rate high enough to allow even coverage with multiple coats and low enough to prevent material from draining away from the treatment area.

Release Agent (Optional): Optionally, a form release agent (like Durasoil®) can be sprayed onto the equipment

to prevent Dust control project overspray from adhering onto the outside of the equipment

#### 3.) Prepare the Dust control project Dilution

Water: Fill the application equipment with the recommended volume of water.

Reference the "application coverage rates" chart.

**Example**: Roads (Light Traffic) = 32 ft<sup>2</sup>/gallons (0.8m<sup>2</sup>/liter) +7 parts water.

Equipment: 4,000 gallon (15,142 liters) water truck

**Calculation**: 7+1 = 8 parts dilution total.

4,000 gallons / 8 parts = 500 gallons (1,893 liters) per part

Volume of Water: 500 gallons X 7 parts = 3,500 gallons (13,249 liters) of water

Volume of Dust control project: 500 gallons X 1 part = 500 gallons (1,893 liters) of concentrate

Volume of Dilution: 500 gallons X 8 parts = 4,000 gallons (15,142 liters) of dilution

**Dust control project**: Fill the application equipment with the recommended volume of Dust control project concentrate

Foaming: To prevent foaming, add the Dust control project concentrate last, directly into the water.

#### 4.) Apply the Dust control project Dilution

Multiple Coats: Apply the Dust control project dilution in coats over the treatment area.

**Example**: (See Above) Roads (Light Traffic) typically require a minimum of 4 even coats.

500 gallons / 4 coats = 125 gallons (473 liters) (Dust control project concentrate) per coat.

4,000 gallons / 4 coats = 1,000 gallons (3,785 liters) (Dust control project dilution) per coat.

500 gallons (Dust control project concentrate) X 32 ft²/gal. = 16,000 ft² (1,487 m²) treatment per truck

**Drying**: Each successive coat of Dust control project dilution should be applied in a timely manner to ensure that the

surface always stays wet with the Dust control project dilution. DO NOT allow the Dust control project dilution to dry

between the application coats. Failure to do so will result in an underperforming "skin" layer rather than a penetrating layer.

#### 5.) Clean the Application Equipment

**Rinse**: Rinse off all application equipment thoroughly with water until clean. If Dust control project is allowed to dry and

cure use a hot pressure washer or steam cleaner and brush to remove residue.

Traffic: Prevent any human activity over the treated area until the site has completely cured.

Curing: Allow the treated area to dry and cure for approximately 24 hours (@70°F/21°C).

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Topical Non-Traffic Application Overview

#### 1.) Prepare the Site

**Soil Moisture**: The site should be completely dry free from water.

Weather: The site must be free from rain for a minimum of 72 hours after the application. Temperature must

at least 40°F (4°C).

Compaction (Optional): Compaction is not required but is recommended for optimal longevity. A minimum of 95% density is recommended (per ASTM D 698 D 1557 modified Proctor Density).

Drainage: Optimally, contour the site to provide for proper drainage to prevent channeled water flow.

Pre-Wetting (Optional): Optimally, pre-wet the treatment area with water (only) to break the surface tension and increase penetration depth. Pre-wet at a rate of 100 SF/gallon (2.5m²/liter) of water.

#### 2.) Prepare Application Equipment

**Spray Nozzles**: Set spray nozzles to the desired width, height and output rate.

Test equipment (off-site) if necessary.

**Coverage**: The spray nozzles should provide an even coat over the treatment area with each pass.

Spray Rate: Set the spray rate high enough to allow even coverage with multiple coats and low enough to prevent material from draining away from the treatment area.

Release Agent (Optional): Optionally, a form release agent (like Durasoil®) can be sprayed onto the equipment to prevent Dust control project overspray from adhering onto the outside of the equipment

#### 3.) Prepare the Dust control project Dilution

Water: Fill the application equipment with the recommended volume of water.

Reference the "application coverage rates" chart.

Example: 6 Month Dust Control (no traffic)=138 gal./acre=316 ft²/gal.)(8 m²/liter) + 13 parts water

**Equipment:** 4,000 gallon (15,142 liters) water truck

**Calculation**: 13+1 = 14 parts dilution total.

4,000 gallons / 14 parts = 286 gallons (1,082 liters) per part

Volume of Water: 286 gallons X 13 parts = 3,714 gallons (14,060 liters) of water

Volume of Dust control project: 286 gallons X 1 part = 286 gallons (1,082 liters) of concentrate

Volume of Dilution: 286 gallons X 14 parts = 4,000 gallons (15,142 liters) of Dust control project dilution

Formula1: Fill the application equipment with the recommended volume of Dust control project concentrate.

**Foaming**: To prevent foaming, add the Dust control project concentrate last, directly into the water.

#### 4.) Apply the Dust control project Dilution

Multiple Coats: Apply the Dust control project dilution in coats over the treatment area. On slopes, the steeper the slope, the need for more coats (to prevent run-off and increase penetration depth).

Example: (See Above) 6 Month Dust Control Rate (no traffic) typically requires 1-2 Coats 286 gallons / 2 coats = 125 gallons (473 liters) (Dust control project concentrate) per coat.

4,000 gallons / 2 coats = 2,000 gallons (7,571 liters) (Dust control project dilution) per coat.

286 gallons (Dust control project concentrate) / 138 gal./acre = 2 acres (8,378 m²) treatment per truck

Drying: On slopes, each successive coat of Dust control project dilution should be applied in a timely manner to ensure that the surface always stays wet with the Dust control project dilution. On slopes, DO NOT allow the Gorilla- Snot® dilution to dry in between the application coats. Failure to do so will result in an underperforming "skin" layer rather than a penetrating layer.

#### 5.) Clean the Application Equipment

Rinse: Rinse off all application equipment thoroughly with water until clean. If Dust control project is allowed to dry and cure, use a pressure washer or steam cleaner and a brush to remove residue.

**Traffic**: Prevent any human activity over the treated area.

Curing: Allow the treated area to dry and cure for approximately 24 hours (@70°F/21°C).

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ONLINE INFORMATION www.ICSlinc.com

**EMERGENCY TELEPHONE NUMBERS** 323 – 582-2222

**ODOR** Mild / Slight (no odor once cured)

**SYNONYMS** Soil stabilizer, soil stabilization agent, soil solidifier, soil amendment, soil additive, soil crusting agent, dust control agent, dust inhibitor, dust palliative, dust suppressant, dust retardant

**CHEMICAL FAMILY** All natural, Biodegradable

**EMPIRICAL FORMULA** Mixture **INTENDED USE** Soil stabilization, soil solidification, fugitive dust control, dust suppression, dust abatement, tackifier, dust abatement, PM10 and PM2.5 air quality control and erosion control

#### % CAS Number Chemical Name

 20-60 Proprietary natural biodegradable materials
 80-40 Water

#### **ROUTES OF ENTRY**

use.

Eye Contact, Skin Contact, Ingestion, and Inhalation

# SIGNS AND SYMPTOMS OF ACUTE EXPOSURE

Eyes: Direct contact with this material may cause eye irritation including lachrymation (tearing). Inhalation: Inhalation of vapor or aerosol may cause irritation to the respiratory tract (nose, throat, and lungs). Skin: Contact may cause skin irritation. Ingestion: No hazard in normal industrial

FLASH POINT (closed cup) Not applicable

UPPER EXPLOSION LIMIT (UEL) Not applicable

LOWER EXPLOSION LIMIT (LEL) Not applicable

**C.A.S. CHEMICAL NAME** Mixture

# SIGNS AND SYMPTOMS OF CHRONIC EXPOSURE

Prolonged or repeated contact with skin may cause irritation and dermatitis (inflammation).

#### **CARCINOGENICITY**

This material **does not** contain 0.1% or more of any chemical listed by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or regulated by the Occupational Safety and Health Administration (OSHA) as a carcinogen.

#### **EYE CONTACT**

Flush eyes with clean water for at least 15 minutes. Get immediate medical attention.

#### **SKIN CONTACT**

Remove contaminated clothing and shoes. Wash affected area with soap and water. Get medical attention if irritation develops or persists.

#### **INHALATION**

Move patient to fresh air. If breathing has stopped or is labored give assisted respiration (e.g. mouth-to-mouth). Supplemental oxygen may be indicated. Seek medical advice.

#### INGESTION

Give the victim one or two glasses of water or milk to drink. Get immediate medical attention. Never give anything by mouth to an unconscious person.

**AUTOIGNITION TEMPERATURE** Not applicable

FIRE HAZARD CLASSIFICATION (OSHA/NFPA)
Non-Combustible

#### **EXTINGUISHING MEDIA**

Product does not burn. The product will only burn after the water it contains is driven off. For dry polymer use carbon dioxide, foam, dry

chemical or water fog to extinguish fire. Aqueous solution is not flammable.

#### FIRE FIGHTING EQUIPMENT

Wear self-contained breathing apparatus (SCBA) and full firefighting protective clothing. Thoroughly decontaminate all protective equipment after use.

#### FIRE FIGHTING INSTRUCTIONS

Containers of this material may build up pressure if exposed to heat (fire). Use water spray to cool fire-exposed containers.

#### FIRE AND EXPLOSION HAZARDS

This material **will not burn** unless it is evaporated to dryness. Closed containers may rupture when exposed to extreme heat.

#### HAZARDOUS COMBUSTION PRODUCTS

When dried polymer burns, water (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO) and smoke are produced.

# CONTAINMENT TECHNIQUES (Removal of ignition sources, diking etc)

Stop the leak, if possible. Ventilate the space involved.

#### **CLEAN-UP PROCEDURES**

Wear suitable protective equipment. If recovery is not feasible, admix with dry soil, sand or non-reactive absorbent and place in an

appropriate chemical waste container. Prevent spilled material from entering sanitary sewers, storm sewers, drainage systems and from

entering bodies of water or ditches that lead to waterways. Transfer to containers by suction, preparatory for later disposal. Place in metal

containers for recovery or disposal. Flush area with water spray. Wash contaminated property (e.g., automobiles) quickly before the material

dries. For large spills, recover spilled material with a vacuum truck.

#### OTHER EMERGENCY ADVICE

**COLOR** Milky White and slightly brownish (transparent once cured)

ODOR Mild / Slight (no odor once cured)

EVAPORATION RATE < 1 (BuAc=1)

**VAPOR DENSITY** > 1 (Air = 1)

**BOILING POINT** >100.00°C (>212.00°F)

FREEZING POINT <0°C (<32°F)

**SOLUBILITY IN WATER** Completely (100%) (until cured)

SPECIFIC GRAVITY (Water = 1) 1.02-1.10

#### **STABILITY**

Stable at ambient temperatures. Coagulation may occur following freezing, thawing or boiling.

Spilled polymer emulsion is very slippery. Use care to avoid falls. A film will form on drying. Remove saturated clothing and wash contacted

skin area with soap and water. Product imparts a milky white color to contaminated waters. Foaming may result. Sewage treatment plants may

not be able to remove the white color imparted to the water.

#### **STORAGE**

Keep from freezing. Store in a dry area. Keep containers closed when not in use to minimize contact with atmospheric air and prevent

inoculation with microorganisms.

#### **HANDLING**

Use only in well-ventilated areas. Avoid contact with eyes. Avoid breathing vapors. Avoid prolonged or repeated contact with skin. Wash

hands thoroughly after handling and before eating or drinking.

#### **EXPOSURE GUIDELINES**

There are no Occupational Safety and Health (OSHA) Permissible Exposure Limits (PEL) or American Conference of Governmental Industrial

Hygienists (ACGIH) Threshold Limit Values (TLV) or Short Term Exposure Limits (STEL) established for the component(s) of this product.

#### **EYE PROTECTION**

Chemical safety glasses.

#### HAND PROTECTION

Rubber Gloves. The breakthrough time of the selected glove(s) must be greater than the intended use period.

#### RESPIRATORY PROTECTION

Not required under normal use.

#### PROTECTIVE CLOTHING

No specific recommendation.

#### **ENGINEERING CONTROLS**

Good general ventilation should be sufficient to control airborne levels of irritating vapors.

PHYSICAL FORM liquid and powder

#### **INCOMPATIBILITY (Materials to Avoid)**

No incompatibilities have been identified.

#### HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition may form: Acetic acid and Acrolein. Thermal decomposition may produce various hydrocarbons and irritating, acrid vapors.

#### HAZARDOUS POLYMERIZATION

Will not occur

#### **CONDITIONS TO AVOID**

Freezing temperatures (until cured).

#### **ACUTE EYE TOXICITY**

No Information is available.

#### **ACUTE ORAL TOXICITY**

No Information is available.

#### **ACUTE SKIN TOXICITY**

No Information is available.

#### **ACUTE INHALATION TOXICITY**

No Information is available.

#### CHRONIC/CARCINOGENICY

This material **does not** contain 0.1% or more of any chemical listed by the International Agency for Research on Cancer (IARC), the National

Toxicology Program (NTP), or regulated by the Occupational Safety and Health Administration (OSHA) as a carcinogen.

#### **ECOTOXICITY**

# **Common Name Species Test Result Concentration**

Green Algae Raphidocelus Subcapitata 96-hr chronic LC50 >1,000 Undiluted

Fathead Minnow Pimephales Promelas 96-hr acute LC50 >1,208 Undiluted

Rainbow Trout Oncorhynchus Mykiss 96-hr acute LC50 >1,000 Undiluted

#### **ENVIRONMENTAL FATE**

No data is available.

#### **WASTE DISPOSAL METHOD**

This material **is not** a RCRA hazardous waste. Disposal of this material is not regulated under RCRA. Consult federal, state

CTC Not Regulated // Keep From Freezing // Not dangerous goods

#### TSCA SECTION 8(b) INVENTORY STATUS

All components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

#### **TSCA SECTION 12(b) EXPORT NOTIFICATION**

This material **does not** contain any components that are subject to the U.S. Toxic Substances Control Act (TSCA) Section 12 (b) Export

Notification requirements.

# OSHA Hazard Communication Standard (29CFR1910.1200) hazard class(es)

This material **is not** classified as hazardous under the criteria of the U.S. Occupational Safety and Health Administration (OSHA) Hazard

Communication Standard, 29 CFR 1910.1200

and local regulations to ensure that this material and its containers, if discarded, is disposed of in compliance with all

#### RCRA HAZARD CLASS

This material **is not** a RCRA hazardous waste. When discarded in its purchased form, this material would not be regulated as a RCRA

Hazardous waste under 40 CFR 261.

**DOT NON-BULK SHIPPING NAME** Refer to Bill of Lading - Not DOT Regulated // Keep From Freezing // Not dangerous goods

DOT BULK SHIPPING NAME Refer to Bill of Lading.

IMO SHIPPING DATA Refer to Bill of Lading.

**ICAO/IATA SHIPPING DATA** Refer to Bill of Lading - Not IATA Regulated // Keep From Freezing // Not dangerous goods

**CFR** Not Regulated // Keep From Freezing // Not dangerous goods

**IMDG** Not Regulated // Keep From Freezing // Not dangerous goods

# EPA SARA Title III Section 311/312 HAZARD COMMUNICATION STANDARD (HCS)

This material is not a hazardous chemical.

EPA SARA Title III Section 313 TOXIC CHEMICAL LIST (TCL)

This product **does not** contain Section 313 Reportable Ingredients.

#### **HMIS and NFPA Classification**

Health: 1 Flammability: 0 Reactivity: 0 Special Hazard: 0

# ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT ANY PRIOR NOTICE

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