



Graffiti Removal Systems Pty Ltd incorporating Malifour Distributors

ABN: 48 079 733 163

Official Provider Melbourne 2006 Commonwealth Games



Keeping Australia Clean & Green

Graffiti Removal Systems

Granitic Sand Stabilizer

TECHNICAL SHEET

Granitic Sand Stabilizer is a powerful binding liquid preparation that is applied to stockpiles, embankments, unpaved roadways and shoulders, yard areas, parking lots and tailings. It penetrates, saturates and bonds surface dust and aggregate together to create a complete, dust-free, water-resistant and resilient surface.

Granitic Sand Stabilizer can be used on a wide variety of materials from homogenous, non-cohesive ilmenite sands to laterite gravels.

PRODUCT INFORMATION

Granitic Sand Stabilizer's unique effectiveness is the result of the length and strength of its molecules and their ability to bond with road material.

Granitic Sand Stabilizer's chemical structure is made of molecules linked in chains and grids that are up to 1,000,000 molecules long. It encapsulates the small particles with its powerful chemical binding ability, up to 10,000 times greater than calcium based dust suppressants or surfactants and wetting agents. Tangible evidence of the effect of Granitic Sand Stabilizer on your material is available before you commit to a purchase. If a representative cannot get to site to demonstrate, send a sample of the material and we will send you back the same sample stabilised.

The Granitic Sand Stabilizer solution should be sprayed onto the roadway or other surfaces only at the rate it can be absorbed. Water is used to spread Granitic Sand Stabilizer and get penetration and saturation of fugitive dust. When water evaporates, Granitic Sand Stabilizer sets. All dust and particles are combined with the base in a dust-free, bound surface.

APPLICATION

Granitic Sand Stabilizer is used to stabilize stockpiles, soil and unpaved surfaces. Granitic Sand Stabilizer solution is applied to stockpiles, embankments and tailings using a water truck equipped with a pump, hose and fire hose type nozzle.

GRANITIC SAND STABILIZER – SUMMARY

- Tailor made solutions for individual problems.
- Cumulative effect from each application.
- Stops dust clouds and dust nuisance.
- Ecologically safe and accepted.
- Reduces road surface deterioration.
- Adds traction and safety in both wet and dry.
- Maximum resistance to rain, UV light and wind.
- Clean easy to apply will not wash away.
- Does not become brittle and pothole.
- Will not pollute underground water supply.
- Does not leach out.
- Is not carried away on tyres.

All Correspondence

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FACTS

How long does it last between applications?

This is a very loaded question and has many variables to be considered, its biggest enemy are UV rays from the sun, it has a 5 year UV barrier built into the formulation. Having said that Granitic Sand Stabilizer holds in the same way as bitumen, it holds the gravel from the bottom three quarters so that the traffic runs on the stone not on the Granitic Sand Stabilizer. We have had up to 15 years in New Zealand but two years would make most engineers very happy. Tight bends and areas that take trucks turning tightly will wear ahead of straight roads.

How heavy a load will it take?

This is not dependant on Granitic Sand Stabilizer but on the soils and the level of compaction attained during construction, if a CBR (Californian Bearing Ratio) of 80 to 95 is obtained it will take any weight, this assuming the solids and gravels used are non-plastic.

Can it be used on mine roads and public roads as preparation for bitumen application?

Yes it can but most mine roads are of a temporary nature only the main arterial roads are long term normally. When preparing roads prior to bitumen Granitic Sand Stabilizer can be used to hold together the construction while awaiting the bitumen teams arrival.

How durable with heavy rainfall?

Provided the construction, drainage and profiling is correct Granitic Sand Stabilizer is water resistant in its nature. If the Granitic Sand Stabilizer treated road is cured prior to the rainfall, normally an hour or two except of course under over hanging trees that will delay drying times.

How much will one litre cover?

This will depend on the project in hand as Granitic Sand Stabilizer can be used from 2% dilution to 30% dilution rates. Guide: for revegetation and stockpiles 2% to 15% this would also include non-traffic areas for dust control. Roads from 15% to 30% depending on the traffic volumes and axle weights. 30% Granitic Sand Stabilizer mixed into 70% water, this mix is the applied at one litre per square meter of surface area. This can be done in a two 15% coat application if required.

Do soils have to be scarified and compacted between or during application?

Only if the surface requires re sheeting or the fines are loose and the surface uneven. Whatever the surface condition prior to application it will be the same after treatment only it will be bound.

If an area is treated and potholes occur do you have to fill with soil, water and Granitic Sand Stabilizer or fill with soil and water with Granitic Sand Stabilizer?

Potholes should not appear in non-plastic soils they normally simply unravel into corrugations, Granitic Sand Stabilizer correctly applied will not allow this to happen. . Should there be an accident that damages a section of treated road it can be repaired in the normal way using the correct dilution rate mixed with the solids and then compacted.

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PRODUCT FEATURES AND BENEFITS

Granitic Sand Stabilizer is a powerful binding liquid preparation that is applied to stockpiles, embankments, unpaved roadways and shoulders, yard areas, parking lots and tailings. It penetrates, saturates and bonds surface dust and aggregate together to create a complete, dust-free, water-resistant and resilient surface.

Product Category: Granitic Sand Stabilizer.

Top 9 Features <i>(What it does)</i>	Benefits <i>(Why it is important)</i>	Proof <i>(Why it is true)</i>
Tailor made solutions for individual problems	Can be used at dilution rates from 2% to 30% to suit the particular situation.	2% as a tactifier up to 30% for soil stabilisation and heavy traffic
Cumulative effect from each application	On harsh bends with heavy traffic more product can be added and will blend with the original treatment.	Polymers are known to reactivate on contact.
Stops dust clouds and dust nuisance	Granitic Sand Stabilizer binds soil particles together holding the particles from below much like asphalt	A flexible film is formed to the desired depth once applied.
Ecologically safe and accepted	No environmental problems.	MSDS and environmental impact document available.
Reduces road surface deterioration	Because Granitic Sand Stabilizer holds from below, the traffic runs on the stone particles and aggregate.	Depending on application rate and traffic numbers you can expect 6 months to many years with little or no maintenance.
Adds traction and safety in both wet and dry	Granitic Sand Stabilizer on the surface of the aggregate will wear away to leave the aggregate to hold as normal on roads with correct profiles and drainage.	As mentioned above, much like asphalt.
Maximum resistance to rain, UV light and wind	UV filters are built into Granitic Sand Stabilizer's formulation.	UV filters are tested, the product has been tested for rain and wind conditions at most dilution rates.
Does not become brittle and pothole	Granitic Sand Stabilizer's chemical structure is made of molecules linked in chains and grids that are up to 1,000,000 molecules long. It encapsulates the small particles with its powerful chemical binding ability.	Granitic Sand Stabilizer is a blend of five polymers selected specifically for soil stabilisation and dust control.
Reduces vehicle maintenance and downtime.	Some mines are only getting 5000kls out of brakes and less on clutches; engines also suffer from palliative dust.	Indications from mining client's worldwide. Using Granitic Sand Stabilizer's formula.

Granitic Sand Stabilizer

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M ²	Multiply By	Granitic Sand Stabilizer	Water
100	15%	15 litres	85 litres
100	30%	30 litres	70 litres
200	30%	60 litres	140 litres

Spray the chosen mix at 1 Litre per M²

M ²	Multiply By	Granitic Sand Stabilizer
1,000	5%	50 litres
30,000	5%	1,500 litres
1,000	10%	100 litres
16,550	10%	1,665 litres
1,200	15%	180 litres
13,500	20%	2,700 litres
6,000	30%	1,800 litres

M² X % = Product required

ONE COAT APPLICATION

Application rates for spraying on existing heavy traffic pavements

30% solution one coat

One litre of mixed product per M². Example 6,000M requires 1,800 litres of concentrate in 4,200 litres of water for one coat application.

TWO COAT APPLICATION

Two coat application on 6,000m² at total application rate of 30% split in two.

First Coat: REQUIRES 5,100 litres of water plus 900 litres of Granitic Sand Stabilizer plus 6-12 litres Wets All. (15%)

Second Coat: 5,100 litres water plus 900 litres Granitic Sand Stabilizer. (15%)

ALTERNATIVE TWO COAT APPLICATION

500M X 6M = 3,000M². At a total of 30% split in two coats.

1st coat 2,550 litres water plus 6-12 litres Wets All and 450 litres Granitic Sand Stabilizer (15%)

2nd coat 2,550 litres water plus 450 of Granitic Sand Stabilizer (15%)

Granitic Sand Stabilizer can be applied from 2% up to neat depending on the soil type and usage. Each project needs separate evaluation.

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WITTENOOM TRIALS APPLICATIONS GUIDELINES

We recommend that the 25 litres of Granitic Sand Stabilizer concentrate be broken down into four different concentrations according to the table below. Each concentration has been formulated to treat 50m². This will allow 200m² of surface area in total to be trialed.

Choice	Volume of Soil Dust Treatment Concentrate (L)	Volume of Water (L)	Total Volume (L)	Treatable Area
A	2.5	47.5	50	50m ²
B	5	45	50	50m ²
C	7.5	42.5	50	50m ²
D	10	40	50	50m ²
Totals	25 litres	175 litres	200 litres	200m ²

Mixing Procedure

Granitic Sand Stabilizer is readily soluble in water. It is better however to add the product to water rather than water to the product. Agitate for a couple of minutes until satisfactory homogeneous white colour is achieved.

Application Procedure

1. Prepare the trial areas by compacting loose surface material as much as possible. We recommend that you attempt to simulate your planned site preparation procedure.
2. Add 1 litre of Wets All, as supplied, to 200L of water (APPROX).
3. Pre wet the area at a rate of 1 litre of Wets All / water mix to 1m².
4. Spray Granitic Sand Stabilizer solution over trial area at a rate of 1 litre m² ensuring that the spray is as even as possible.

Curing

The curing process will begin immediately as the emulsion breaks with a flexible skin forming from between 1-5 hours depending upon ambient conditions. While the time of day the trial is conducted is not critical, it is better to use common sense by ensuring the curing process takes place at the calmest part of the day (ie not to windy).

The above application rates have been put together to allow the revegetation process to occur and are not for high trafficked areas.