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Technical Data

StarTak™ 100

StarTak™ 100 is a cost-effective, naturally occurring organic tackifier for use in revegetation and hydroseeding applications.

Features

Tackifying
StarTak 100 acts as an adhesive to bind soil, fiber and seed particles together. Its adhesive properties help temporarily control the effects of wind and water erosion during seed germination and plant establishment.

StarTak 100 Can Be Used As A:
- Hydroseeding mulch tackifier
- Straw/hay overspray binder
- Soil stabilization/dust abatement agent

Fertilizing
Since StarTak 100 includes protein, a natural source of nitrogen, it acts as a slow-release fertilizer that helps increase the seed germination and plant establishment process. These natural fertilization characteristics are absent in synthetic tackifier products.

Lubricant
By lubricating the slurry mix, StarTak 100 helps reduce plugging problems and ultimately equipment wear and tear.

Moisture Retention
StarTak 100 helps improve seed germination rates and reduce irrigation frequency in mulch applications. The hydrophilic nature of its organic polymer allows the product to readily absorb and retain water.

Maximum Mixing Ratio
During use in hydromulch tanks, StarTak 100 can be pumped up to a rate of 12 bags of product per 3,000 gallons of water. This helps save valuable time and money.

Cost Effective
Offering a consistent price point year-round, StarTak 100 is one of the most economic tackifiers available on the market. It provides excellent performance at a fraction of the cost of other gum-based or synthetic products.

Environmentally Safe
Derived from 100% natural starch polymer, StarTak 100 is free of odors, contaminants, toxins and weed seed residue. In addition, its application is safe for the environment, plants and animals.

Availability
Unlike other imported polymer tackifiers, StarTak 100 is completely manufactured in the United States. For your convenience, it is packaged in 50- and 25-pound bags.

Physical Properties

Density:	35 - 40 lbs/ft^3
Ash:	< 2%
pH:	6.5 - 8.0
Size:	100% thru 850 microns (20 mesh)
Organic Nitrogen as Protein:	> 5%
Moisture Content:	6 - 10%
Water Holding Capacity:	900%
Settleable Solids:	< 2%
Fiber:	< 4.5%

Aquatic Toxicology

Pimephales promelas (Fathead Minnow)
LC_{50} > 19,200 mg/L
Ceriodaphnia dubia (Water Flea)
LC_{50} > 19,200 mg/L

The LC_{50} for StarTak 100 exceeds the maximum concentration tested. 19,200 mg/L equates to 400 lbs per acre. Recommended application rate of StarTak 100 does not exceed 150 lbs per acre.

Application*

Fiber Mulch Binder

4:1 slopes and flatter	50 - 75 lbs/acre
2:1 slopes and flatter	75 - 100 lbs/acre
1:1 slopes and loose soils	100 - 125 lbs/acre

*Application amounts should be adjusted as necessary for local environmental circumstances such as wind and precipitation levels.

Straw Tackifier

3:1 slopes and flatter	50 - 75 lbs/acre
2:1 slopes and greater	75 - 100 lbs/acre
High wind areas	100 - 150 lbs/acre

Soil/Dust Control

Depending on the type of soil, usage varies 50 - 100 lbs/acre. To garner improved performance, add 200 lbs of fiber mulch.

Lubricant

Add 1 - 2 lbs of StarTak 100 per 100 lbs of mulch fiber.

Mixing Procedure

1) Fill tank with water to the bottom of the agitator.
2) Start the agitator and set it to the maximum RPM level.
3) Continue to fill the tank while slowly adding StarTak 100**.
4) Add seed, fiber mulch and fertilizer.

**Please Note: Rapid addition of the tackifier may cause excessive balling.

Chemstar's natural tackifier products meet or exceed current California, Minnesota, Nevada, and New Hampshire Department of Transportation specifications for tackifiers. Approval is pending in several other states.

Please Note: It is advisable to remove overspray from asphalt or concrete surfaces immediately following application.

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