# **TECHNICAL DATA SHEET**

# StarTak®

StarTak<sup>®</sup> 100 is a cost effective, naturally occurring organic tackifier for use in revegetation and hydroseeding applications.

#### **Features**

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:

- Hvdroseeding 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 at a rate up to 12 bags of product per 3,000 gallons of water. This helps save valuable time and money.

## **Cost Effective**

Offering a consistent price point yearround, StarTak 100 is one of the most economical 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. For additional information, samples or technical assistance in using StarTak 100 or any other Chemstar product please contact 1-800-328-5037 or info@chemstar.com

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# **Physical Properties**

	StarTak 100
Bulk Density (lb/ft³)	30 – 45
Ash (%)	< 2
рН	6.5 – 8.0
Particle Size (% thru)	55 (-) 420 micron
Organic Nitrogen (%)	> 5
Moisture Content (%)	12 Max
Water Holding Capacity (%)	900
Settleable Solids (%)	< 2
Fiber (%)	< 4.5

# **Aquatic Toxicology**

Pimephales promelas (Fathead Minnow) LC<sub>50</sub>> 19,200 mg/L

Ceriodaphnia dubia LC<sub>50</sub>> 19,200 mg/L

The  $LC_{50}$  for StarTak 100 exceeds the maximum concentration tested. 19,000 mg/L equates to 400 lb per acre. Recommended application rate of StarTak 100 does not exceed 125 lb per acre.

# **Application**

Fiber Mulch Binder	StarTak 100
4:1 Slopes or Less	50 – 70 lb/acre
2:1 Slopes or Less	75 – 100 lb/acre
1:1 Slopes and Loose Soils	100 – 125 lb/acre

Straw Tackifier	StarTak 100
3:1 Slopes or Less	50 lb/acre
2:1 Slopes or Greater	60 lb/acre
High wind areas	80 lb/acre

## **Soil/Dust Control**

Depending on the type of soil, usage varies 50 - 100 lb/acre.

To garner improved performance, add 200 lb of fiber mulch.

#### Lubricant

Add 1 – 2 lb of StarTak 100 per 100 lb of mulch fiber.

## **Mixing Procedure**

- 1. Fill tank with water to the bottom of the agitator.
- Start the agitator and set it to the maximum RPM level.
- Continue to fill the tank while slowly adding StarTak 100\*. \*Please Note: Rapid addition of the tackifier may cause excessive balling.
- 4. Add seed, fiber mulch and fertilizer.

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