

# StarFloc®

StarFloc® is a cost effective, naturally occurring organic polymer for use in removal of suspended solids in storm water and process wastewater.

## Flocculation

StarFloc is composed of repeating anhydroglucose units (AGU) in the form of amylose and amylopectin chains, or starch. The anhydroglucose units are modified to provide an electrical charge to the starch molecule. The charged starch polymer is strongly attracted to oppositely charged clay to flocculate and settle out of solution.

## Treatment

StarFloc is easily introduced into turbid storm water as a liquid or solid. StarFloc works equally well throughout a pH range of 2 – 10.5, eliminating time-consuming pH adjustments. Upon treatment, single digit NTU water can be produced

## Cost Effective

Offering a consistent price point year-round, StarFloc is one of the most economic flocculants available on the market. It provides excellent performance at a fraction of the cost of other natural flocculants, such as chitosan.

## Dose Rate

StarFloc works well at low dose rates. Standard rates range from 15 – 40 ppm, depending upon the composition of the solids. At this rate, one 50 lb bag of StarFloc will effectively treat up to 400,000 gallons of storm water.

## Solution Preservation

Extended storage of StarBond 100 solutions could result in viscosity reduction due to microbial or enzymatic attack. Stored solutions should be protected by using a preservative. StarBond 100 is also available with built-in preservation.

## Storage, Handling and Safety

StarFloc exhibits good storage stability if kept dry in its original package. Shelf life can be affected by storage conditions such as temperature, humidity and overall surroundings of the storage area. A Safety Data Sheet is available from Chemstar and should be consulted prior to handling or use.

## Availability

StarFloc is available in 50 lb multi-wall poly-lined paper bags for truckload and LTL shipments. For additional information, samples or technical assistance in using StarFloc or any other Chemstar product please contact 1-800-328-5037 or [info@chemstar.com](mailto:info@chemstar.com)

## Solution Preparation

- 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 StarFloc. StarFloc can be easily mixed with water to a maximum 6% concentration by weight. Please Note: Rapid addition of StarFloc may cause balling and incomplete hydration.
- 4) Mix for 15 minutes to allow complete hydration.



## Physical Properties

StarFloc	
pH	6.5 – 8.0
Moisture Content (%)	12 Max
Particle Size (% thru)	100 (-) 1000 micron
Density (lb/ft <sup>3</sup> )	30 – 40
Appearance	Off-White

## Aquatic Toxicology

Pimephales promelas (Fathead Minnow)

LC<sub>50</sub> > 800 mg/L

NOEC 800 mg/L

The LC<sub>50</sub> for StarFloc exceeds the maximum concentration tested of 800 mg/L. Recommended treatment of StarFloc is 15 – 40 mg/L.

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