TRAMFLOC, INC.

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Technical Information Bulletin

TRAMFLOC® 1001B SUPERABSORBENT POLYMER

Product Description

Tramfloc® 1001B is a water absorbing soil conditioner. Tramfloc® 1001B is a homopolymer of sodium polyacrylate used to absorb and retain large quantities of water and nutrients. Tramfloc® 1001B is supplied as a white powder with a size range of 0.3-0.6 mm.

Uses

Tramfloc® 1001B is applied in agricultures, horticulture, forestry, mining and other operations where moisture retention is required. Tramfloc® 1001B has an anionic character and is 100% active with a maximum moisture content of 10 per cent. Tramfloc® 1001B is insoluble in water and functions in the usable pH range of 5-9.

Typical Characteristics

Maximum absorption in weight of retained water per weight of Tramfloc® 1001B is as follows. a) deionized water.....380; b) water with 1000 ppm NaCl.....190; c) in soil, measured under a pressure of 2 atm.....225; d) time to reach 60% of maximum absorption, minutes.....10; e) stability of swollen product in sandy soil, years.....2-4; g) approximate bulk density: 0.8. These values are manufacturing specifications. Please consult a COA for specific values. The absorption rate is greater than 300 mls of pure water per gram of SAP. For brines of 0.9% NaCl the absorption rate is greater than 60 mls per gram of SAP. The absorbed liquid is stored as a gel. The retention rate is measured in grams of remaining water after passing through a centrifuge. We offer a various particle sizes in our SAP product line. Finer particles absorb liquid faster than larger particles such as Tramfloc® 1002 and 1004, 2 mm and 4 mm nominally, respectively.

Parameter		Unit	Value			Test Result
			Max	Target	Min	
pH		/	6.3	6.1	5.9	6.2
Residual Monomer		ppm	500	300	-	309
Particle Size Distribution	> 850 µm	%	1.0	-	-	0.3
	850 - 600 µm		45.0	28.0	20.0	34.8
	600 - 300 µm		65.0	53.0	35.0	53.2
	300 - 150 µm		30.0	18.0	5.0	11.0
	150 - 45 µm		2.0	1.0	-	0.7
	< 45 µm		0.5	-	-	0.0

Application Rates

Rates vary according to the conditions of the soils, crops, water supplies, and whether water is from rainfall or irrigation and the quantities and frequencies of watering. General guidelines are: 2-3 kg/m^3 in mixed to substrates consisting of sand, peat and compost; 50-100 g/m^2 in broadcasting, 25-50 kg/hectare.

Packaging, Handling and Storage

Tramfloc® 1001B is available in 20 kg multi wall bags packed 40 per pallet, 180 kgs drums and in 1000 kgs sacks. Storage temperatures should be between 32-100 ^{0}F. Unopened bags are hygroscopic and should be stored in a cool, dry place. Shelf life is about 5 years.

Safety and Health

Dry polymer spills should be left dry and swept up at once. Spills of polymer are slippery. Precautions should be taken to prevent them from entering lakes or streams. Polymer can be disposed of according to local regulations or treated with an absorbent material, then collected for subsequent legal disposal. Tramfloc® 1001B has been shown to exhibit a low order of toxicity. Nevertheless, precaution should be taken to prevent inhalation, ingestion or contact with skin or eyes. Observing basic industrial hygiene precautions should prevent any health or safety hazards.