



PAPERTEX CS-5000

Emulsion Flocculants

Description

PAPERTEX CS-5000 flocculants are ultra high molecular weight flocculants of differing charges and structures that work effectively as sludge conditioning agents and aid water clarification processes across a wide variety of industries. These products are especially effective in those applications where extreme high molecular weight products are needed such as screw presses, centrifuges, and belt filter presses. The chemistry range available ensures there is a product suitable for each individual application.

Properties

Products	CS-5020	CS-5030	CS-5040	CS-5050	CS-5060
Appearance	← Opaque liquid →				
Charge (mol%)	10	15	20	28	40
Molecular Weight	← Very High Molecular Weight →				
Specific Gravity (25°C)	← 1.02 – 1.06 →				
Freezing Point (°C)	← -18 →				
Flash Point, closed cup (°C)	← > 100 →				
Solution pH (0.5% DI water)	4 - 5				
Bulk Viscosity (mPa.s)	500 - 3500	500 - 3500	500 - 3500	500 - 3500	2000 - 4000

Solution Viscosity (mPa.s)

0.10%	50	60	70	80	100
0.25%	100	130	150	180	200
0.50%	200	250	300	350	400
1.00%	400	500	600	700	800

Application

Prior to initial use, the CS-5000 series emulsion flocculants should be agitated thoroughly via a drum/IBC stirrer or a recirculation pump to ensure uniformity. Recommended working solutions are 0.5% concentration, however, stock solutions can be prepared up to 1% via an automated make down unit or on a batch basis. Solutions should be aged 30 minutes for maximum effectiveness. High quality make up water should be used. Secondary dilution water can be added to the stock solution prior to the addition point to improve mixing with the substrate. A distributing header or distribution ring is recommended in the treatment stream. Avoid centrifugal pumps for polymer transfer.

PRODUCT INFORMATION



PAPERTEX CS-5000 flocculants withstand more shear than conventional flocculants, however more mixing of the diluted polymer solution with the substrate may be required. This can be accomplished by moving the addition point further back in the system, increasing floc tank mixing energy, using additional dilution water or a combination of these.

For more information on dosages and applications consult your local Papertex representative.

Health & Safety

The series of PAPERTEX CS-5000 flocculants have estimated acute oral (rat) LD50, acute dermal (rabbit) LD50 and acute 4-hour inhalation (rat) LC50 values of > 5,000mg/kg, >2,000 mg/kg and >20mg/L respectively. Direct contact with these materials may cause moderate skin and mild eye irritation. Overexposure to vapour may cause respiratory tract irritation and central nervous system depression.

Before handling these materials read the corresponding Papertex Material Safety Data Sheet (MSDS) for safety and health data.

Storage and handling

Rubber gloves, goggles and protective clothing are recommended for use while handling these products.

Recommended materials of construction include stainless steel, fiberglass, plastic, and glass or epoxylined vessels. Do not use iron, copper or aluminum. The shelf life of these products is 6 months when stored at temperatures between 5 - 30°C. For best results avoid freezing. If the product freezes, thaw completely and mix prior to use.

Spilled polymer is very slippery and should be absorbed onto an inert material and collected prior to thoroughly flushing with water.

Packaging and shipping

PAPERTEX CS-5000 flocculants are packaged and shipped in 200 litre drums, 1000 litre IBCs and bulk quantities.