

Water Technologies & Solutions fact sheet

BetzDearborn* CE1163

- Increases efficiency of sludge dewatering operations
- Effective on biological sludge dewatering operations
- Improves suspended solids removal operations and effluent quality
- Easily fed liquid emulsion

description and use

BetzDearborn CE1163 is a liquid, very high charge density, high molecular weight cationic emulsion polymer. This product may be used effectively in solid/liquid separation applications and sludge dewatering. It is designed to function in a total SUEZ treatment programme. It is a highly effective dewatering agent for biological (secondary) waste sludges.

typical applications

BetzDearborn CE1163 is very effective in sludge dewatering operations. Benefits include higher solids capture, drier cake, and cleaner effluent.

Decreased effluent suspended solids result when BetzDearborn CE1163 is applied as a settling aid in wastewater clarification and thickening systems. A large, faster settling agglomerate forms producing higher quality effluents.

BetzDearborn CE1163 is especially suited to secondary solids settling, thickening, and sludge dewatering in the organic chemical, oil refining, steel, aluminium, food and paper industries.

treatment and feeding requirements

Before initial use, BetzDearborn CE1163 should be thoroughly agitated with a drum mixer or recirculating pump for 30 to 60 minutes to ensure homogeneity. Remix the polymer for several minutes each day thereafter; bulk system agitators or recirculation

pumps should be operated for 30 to 60 minutes daily. Avoid water contamination due to either condensation or water droplets (such as rain) in open containers.

BetzDearborn CE1163 can be prepared either by using a continuous emulsion makedown unit or by using a batch system. Stock solutions are prepared as follows: Fill the solution preparation tank approximately 1/3 full of water so that the agitator blade is covered. Begin agitating and slowly add the premixed polymer to the solution tank, either through a disperser unit or directly into the vortex of the tank solution.

Continue to fill the tank with water to achieve a 0.5% solution. Continue to mix for an additional 10 to 20 minutes at low speed (350 rpm) to complete activity development. Note that high-speed agitation should be avoided since it may lead to degradation of the polymer.

Transfer the stock solution to a holding tank to provide for continuous polymer supply, further diluting to 0.2% before the point of application. Continuous feed is recommended.

Neat BetzDearborn CE1163 can be handled with any appropriately sized gear or diaphragm pump suitable for viscosities up to approximately 2500 cps. Type 304 stainless steel, polyethylene, and rigid PVC are satisfactory for tanks, tubing, piping, and pumps. Viton and fluorosilicon type rubbers can be used for pump components and hose linings. Flexible PVC tubing (such as Tygon*), Buna-N and Neoprene rubber can be used for short term installations, but may not be satisfactory in permanent applications. Mild steel and copper alloys should only be used if discoloration of the polymer by corrosion products is tolerable.

Stock solutions should be handled with the same materials of construction. Positive displacement

pumps, such as gear or piston pumps, can be used to meter the solution to the point of application.

Bulk tank storage should include a desiccant and agitator or recirculation system. Tanks should be installed according to the standard SUEZ tank installation instructions. Consult your SUEZ representative for additional information on bulk feed options.

general properties

Physical properties of this product are shown on the Material Safety Data Sheet, a copy of which is available on request.

packaging information

BetzDearborn CE1163 is available in a wide variety of customised containers and delivery methods. For more information please contact your SUEZ representative at www.suezwatertechnologies.com.

storage and handling

BetzDearborn CE1163 should be stored at moderate temperatures (4-32 °C) and should be protected from freezing. This polymer should also be protected from rapid or repeated changes in temperature, which may lead to condensation within the container.

This product should be used within six months to ensure maximum activity.

Spilled polymer is very slippery and precautions should be taken to avoid spills. If a spill occurs, cover the polymer with an inert absorbent material, sweep up the spill, and place in a waste disposal container before flushing the area with water. In a wet area, use sand, grit or other suitable material to provide additional traction.

safety precautions

A Material Safety Data Sheet containing detailed information about this product is available on request.

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