# **CAREFLOC 44**

# high molecular weight, cationic powder polymer used in high shear environments for water clarification, sludge thickening

#### DESCRIPTION

CareFloc 44 is a cationic POWDER flocculant, with a high degree of charge and high molecular weight. CareFloc 44 is designed for high rate primary and secondary dewatering of activated sludge from wastewater treatment plants on board Cruise liners, Merchant vessels and Navy vessels.

### ADVANTAGE

- High molecular weight for robust floc formation in high shear environments
- Forms a tight, dense floc that promotes sedimentation and dewatering
- Lower dose rates (up to 20% less)
- Increased cake solids (up to 15%)
- Produces a good quality, low particulate centrate
- Economical to use effective at lower dosage levels

### **APPLICATIONS**

CareFloc 44 is used for dewatering of activated sludge from combined waste water treatment plants on board ships. CareFloc 44 creates high dewatering rates, what results in energy savings on the incinerator(s). A high percentage Dry Solids after the dewatering equipment (decanter, centrifuge, (belt)filterpress or vacuumfilter), reduces the amount of sludge to be landed or the be dried.

CareFloc 44 can be used in conjunction with all modern wastewater treatment plants, as Scanship AWB, Hamworthy MBR, Rochem LPRO and Bio-Filt, Zenon ZeeWeed MBR, Scanship AWP, Hydroxyl CleanSea, Evac MBR.

### **DIRECTIONS FOR USE**

CareFloc 44 has to be diluted to max. 0,5 % as stable stock solution. The dilution water should be of high quality (low hardness, low chlorine, low iron; preferably technical water, reversed osmosis or demineralized water).



- High efficiency
- Easily soluble in water
- Broad cationic range
- High dewatering rate

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## **DIRECTIONS FOR USE (CONTINUED)**

powder should be added slowly to a vortex or highly turbulent area of the polymer make-down tank. The aim is to wet (or hydrate) each polymer grain individually to avoid their agglomeration into a mass of dry polymer surrounded by a viscous gel, and to stop the formation of 'fish eyes' The dilution water should have best a temperature of 35 - 40 °C. The stock solution should age for 30-60 minutes. Secondary dilution water should be added to the stock solution by a ratio of 1 : 10. For example by means of a pipe flocculator.

Avoid centrifugal pumps for polymer transfer, high sheer pumps will crack the molecular chains.

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

CareFloc 44 has to be stored between 5 and 30 °C. Avoid Freezing.

#### DOSAGE

For sludge dewatering applications the dose rate is highly dependent on the type of sludge to be treated. Primary sludge may require 2 - 5 kg/ton dry sludge, while secondary and digested sludge may require 2 - 10 kg/ton dry sludge.

### PROPERTIES

Article number	14416	
pH (0,5 % soluiton)	3 - 5	
Density	0,75 g/cm <sup>3</sup>	
Flashpoint	N.A.	
Physical state	Granular powder, off-white	
Viscosity @ 25 °C	0,1 %	150 cP/mPa.sec
	0,25 %	350 cP/mPa.sec
	0,5 %	700 cP/mPa.sec
	1.0 %	1700 cP/mPa.sec

#### **APPROVALS**

For detailed information on safety and health, please refer to the Material Safety Data Sheet MSDS and/or product label.



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