



POULTRY

Plant Application Successful Experience

A poultry slaughterhouse processing 200,000 chickens per day was using alum salts as coagulant agent in the wastewater treatment plant.

CURRENT TREATMENT

- Difficulties in handling huge number of products (powder) and the frequency of preparing the coagulant batches;
- Low efficiency in the COD removal;
- Low fat and oil removal;
- Sludge after treatment is acid;
- High energy consumption at the biological step;
- Metallic salts will continue to accumulate in the sludge;
- As the wastewater characteristics change during the work-shift according to the industry operations (slaughter, washing, etc.), it brings difficulties to adjust the right dosage of alum salt;
- pH variation, requiring a huge amount of lime;
- Sludge after treatment contaminated with huge amounts of metallic salts;
- As a consequence, large volumes of difficult-to-handle sludge have to be disposed in special cells, increasing treatment costs.



REDUCES TREATMENT COST

- Acquapol is a metal-free vegetable organic coagulant/flocculant with the special characteristic to remove more fat, oil, grease, proteins than the alum salts;
- Sludge volume reduction;
- Sludge with a higher solid content;
- Sludge with less acidity;
- Sludge could be used in bioreactors to produce biogas and/or could be disposed into the soil as a fertilizer;
- As a natural product, ACQUAPOL does not change the original characteristics of the sludge;
- The water after treatment is easy to treat at the biological process, less energy needed;
- Less chemical handling;
- Less operational care;
- Cost reduction.

	Dosage mg/L	PAM mg/L	Lime - pH 11	COD initial: 2,900 mg/L	Grease & Oil initial: 190 mg/L
Alum Salt Treatment	800 mg/L	2		1,600 mg/L	 70 mg/L
ACQUAPOL Treatment	300 mg/L	1		520 mg/L	 20 mg/L
Reduction	62.5 %	50 %	100 %	82.1 %	89.5 %



Cost reducing



Sludge reduction and environmentally friendly



An easy-to-handle product



An easy dewatering sludge



Sludge may be used in biogas reactors and as soil fertilizer



The next-step biological process will be more efficient



Possibility of reuse of the treated water in the washing operations



Health and safety improvements as a result of the use of a non-toxic and non-corrosive product