



DAIRY

Plant Application Successful Experience

A dairy industry located in southern Brazil, processing one million liters of milk a day, produce UHT milk, cream, flavoured milk and milk powder.

CURRENT TREATMENT

- Generates a large volume of “harmful sludge” that requires a special and expensive disposal, increasing the treatment cost;
- This “harmful sludge” is always the company’s responsibility and, until now, there was no other usage for that sludge;
- Generates a large amount of acid sludge;
- Using iron salt as coagulant, increase the acidity of wastewater;
- Metallic salts consume the alkalinity of the treated effluent, resulting with a wide variation of the pH range;
- The need to use large amounts of alkalizing agents to readjust the pH level increase the treatment cost;
- Metallic salts will continue to accumulate in the sludge;
- High levels of iron residual;
- Large amounts of chemicals are handled several times a day for each batch;
- Short-lived equipment due to chemical corrosion;
- High-cost facility maintenance due to chemical corrosion.



REDUCES TREATMENT COST

- Acquapol is a metal-free vegetable organic coagulant/flocculant with the special characteristic to remove more fat, oil, grease, proteins than iron salts;
- Sludge reduction;
- Non-hazardous sludge;
- Reduces the sludge transportation cost because there are much more disposal side options;
- This biodegradable environmentally-friendly sludge could be disposed in any farmland as fertilizer without any extra treatment cost;
- Acquapol will not change the acidity of the sludge;
- No need to use alkalizing agents;
- Treated water can be reused;
- The sludge obtained from the Acquapol treatment is a very good energy source to use in the bio-reactors to produce biogas as a low-cost alternative energy;
- Non-corrosive;
- This “green technology” will highlight the company’s image due to its attention and care for the environment, positioning the company above the competition.

	Dosage mg/L	PAM mg/L	Lime	Sludge Production	COD Reduction
Iron Salt Treatment	1,500 mg/L	3		300 ton/month	40 %
ACQUAPOL Treatment	300 mg/L	1		170 ton/month	65 %
REDUCTION	80.0 %	66.6 %	100.0 %	43.3 %	65.0 %



Costreducing



No lime



43,3 % sludge reduction



Biodegradable product application will improve the Biological Treatment (activated sludge)



No iron residue after treatment



Organic sludge that can be used as organic fertilizer



Better efficiency



Reuse of the water after treatment



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