Saponins

Description
Saponins are naturally occurring foam-producing triterpene or steroidal glycosides (Tacon, 1997). Acting as a detergent, they can damage the intestinal mucosa disrupting the nutrients transport. They are capable of binding with proteins, forming sparingly digestible complexes and reducing consequently the protein digestibility (Francis et al., 2001). Their bitterness is known to affect the ingredients palatability (Guillaume et al., 1999). Saponins are commonly used as a fish-poison. When added to the water, they damage the respiratory epithelium of the gills (Francis et al., 2001). Levels below 1 g/kg are unlikely to affect growth performance of common aquaculture fish (Francis et al., 2001).

Occurrences
They occur in many plant species and are particularly concentrated in the leaves (Guillaume et al., 1999).

Treatment
Saponins are highly soluble in water and can be removed by aqueous extraction (Francis et al., 2001).