ALLINSUR™

A SERIES
FAT PRESERVATION

MANAGING INHERENT FAT AND OIL RISKS

Ensuring the safety and quality of commercial pet foods is both a challenging and complex process. A few of the major challenges that pet food manufacturers face include oxidative deterioration and microbial contamination of both their ingredients and pet food. Failure to control oxidation of the fats and oils used in pet foods can result in loss of nutritional quality and reduction in palatability of the pet food. Autoxidation can be effectively managed through proper use of antioxidants in pet food ingredients and throughout the entire pet food production processes.

Microbial hazards are considered a pet food safety issue and are seen by many as a potential public health issue due to the risk of direct human contact with pet food. Effective management requires that a complete hazard analysis be completed on the entire supply chain and production process and that preventative controls be put into place. In pet foods a primary risk is any ingredient that is added to kibble externally after the extrusion kill step. Since fats and oils are added post extrusion they can be managed by several methods: good sanitation and hygiene procedures, heating fat to control microbial levels and usage of ingredients that can provide microbial control.

KEMIN®

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The quest for natural freshness in pet treat protection starts with Kemin.

PETFOOD RECALLS

Over last 10 years there has been a growing scrutiny over the microbiological safety of pet foods. As shown in Figure 1, in the last four years, greater than 75% of petfood recalls have been associated with suspected pathogen or mold contamination. A majority of these recalls have been related to salmonella, while the last two years have also seen a growth in recalls linked with Listeria.

ALLINSUR™ AN-21T LIQUID

Allinsur AN-21T was developed to provide petfood manufacturers and renders an effective, natural option to control autoxidative deterioration of fats, preserve fat freshness and adds secondary benefit of influencing microbial risks in fats. A study was conducted at Log10, LLC to evaluate the effectiveness of Allinsur in influencing the growth of three Salmonella strains (*S. typhimurium, S. schwarzengrund, and S. infantis*) at two concentrations (10^3 & 10^6 CFU/g). Figure 2 and Figure 3 demonstrate the success of an Allinsur prototype in controlling microbial contamination in poultry fat. Just as important, studies have also shown that it does not negatively impact the palatability of a cat food coated with a fat containing Allinsur.

FEATURES

- Effective combination of antioxidant and organic acid
- Provides natural preservation option to maintain freshness
- Consumer-friendly labeling

BENEFITS

- Provides effective oxidation management
- No observed "scorching" or black spots in fat
- Neutral impact on palatability
- Secondary benefit of influencing microbial levels in fats

Figure 1: Petfood Recalls 2012 - 2015[1]

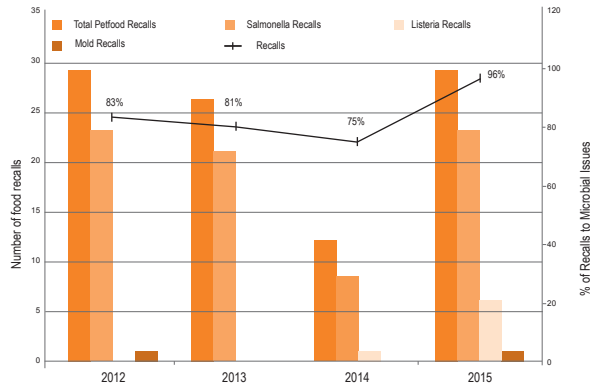


Figure 2: Effect of an Allinsur Formulation on Salmonella at Low Inoculum Levels (10^3 CFU/g)

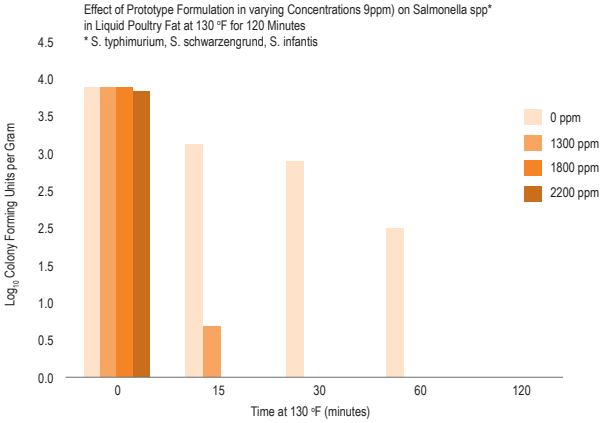
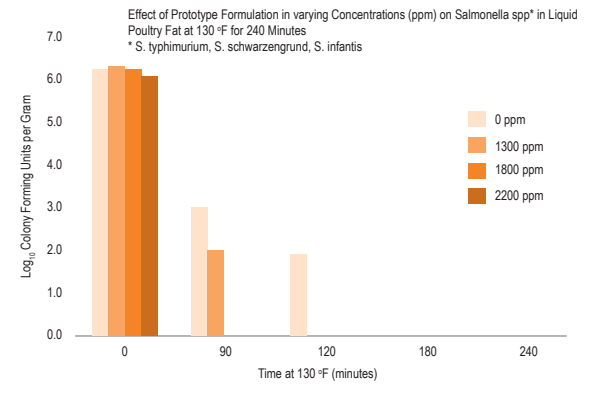
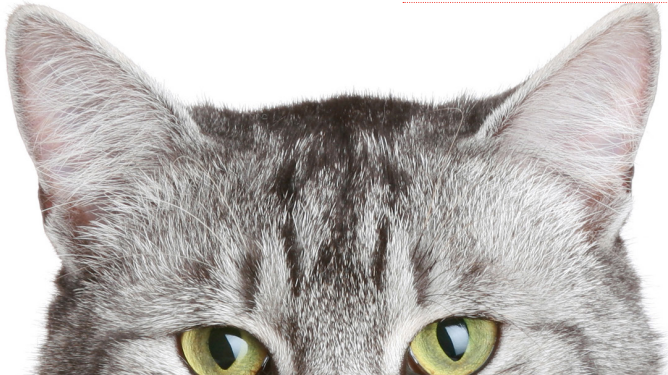


Figure 3: Effect of an Allinsur Formulation on Salmonella at High Inoculum Levels (10^6 CFU/g)





BR-2016-00045

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