



GOLD SHIELD™
PetFoodSolutions.com

“A BRAND’S BEST FRIEND”



Better
SAFETY



Better
QUALITY



Better
TASTE

Composition Comparison: GOLD SHIELD™ RCF VS Chicken Fat

Refined Chicken Fat: Typical Analysis vs. Standard Chicken Fat							
	Refined Chicken Fat	Standard Chicken Fat		Refined Chicken Fat	Standard Chicken Fat		
Moisture (Avg wt-%)	0.40	0.18	Fatty Acid Profile (Avg wt-%)				
Insolubles (Avg wt-%)	0.08	0.24		C12 Lauric Acid	0.06	0.05	
Unsaponifiables (Avg wt-%)	0.99	0.92		C14 Myristic Acid	0.56	0.63	
Total MiU (Avg wt-%)	1.47	1.33		C14:1 Myristoleic Acid	0.17	0.18	
Free Fatty Acids (Avg wt-%)	2.75	3.15		C16 Palmitic Acid	23.90	24.32	
Peroxide Value (meq/kg)	0.70	0.70		C16:1 Palmitoleic Acid	6.64	6.58	
Metals and Salts				C16:2 Hexadecadienoic Acid	0.00	0.02	
	Iron (ppm)	<1.0		1.8	C17 Margaric Acid	0.11	0.09
	Magnesium (ppm)	<1.0		4.2	C17:1 Maraleic Acid	0.08	0.03
	Calcium (ppm)	5.1		15.9	C18: Stearic Acid	5.83	5.99
Phosphorus (ppm)	6.4	280.9		C18:1 Oleic Acid	39.90	39.94	
Sodium (ppm)	2.0	48.0		C18:2 Linoleic Acid	20.39	19.73	
Potassium (ppm)	4.6	82.4		C18:3 Linolenic Acid	1.25	1.22	
Sulfur (ppm)	26.3	43.2		C20 Archidic Acid	0.06	0.08	
				C20:1 Eicosenoic Acid	0.33	0.29	
			Total FFA (wt-%)	99.28	99.10		
FAC Color	Golden Yellow to Light Brown						
Physical Appearance	Mobile Liquid						
Flavor/Odor	Neutral/Bland						



Chicken Fat (CF) Leftover Residue (LR) Refined Chicken Fat (RCF)

- Same Fatty Acid Profile
- Fewer Impurities: Insolubles, Metals, Salts, Organics



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GOLD SHIELD™ RCF: Value for Pet Food Producers

RCF Technology Feature	Benefit	Implications for Manufacturers
Bacteriostatic Properties	<ul style="list-style-type: none"> • RCF process kills bacteria and removes bacterial contaminants • Inhibits future <i>Salmonella</i> growth 	<ul style="list-style-type: none"> • Improved Consumer Food Safety by limiting <i>Salmonella</i> product contamination - risk of recalls, etc. • Lowers process & plant worker risk of exposure
Palatability Performance	<ul style="list-style-type: none"> • Superior in testing vs. standard higher-risk Chicken Fat 	<ul style="list-style-type: none"> • Optimize cost / inclusion of expensive palatants • Dogs & pet owners love the product
Process Consistency = <ul style="list-style-type: none"> - Higher Purity - Much higher stability 	<ul style="list-style-type: none"> • RCF process eliminates non-fat impurities • Lot-to-lot uniformity – tighter specifications • Far better shelf life & product quality 	<ul style="list-style-type: none"> • Higher nutrient density = pure fat - no "extras" • Minimize process variation, expense • Significant cost savings on expensive AOX!
Supports "Clean Label" E. U. Certification (Q320)	<ul style="list-style-type: none"> • Labeled simply as "Chicken Fat" • Value for exporters 	<ul style="list-style-type: none"> • No change, cost impact vs. current label • Key benefit to serve markets beyond the U.S.
Limits Need for Additives	<ul style="list-style-type: none"> • Minimized microbial load reduces need for chemical additives 	<ul style="list-style-type: none"> • Ingredient, handling, and process cost, simplification & control
Improved Process Efficiency	<ul style="list-style-type: none"> • Residual, non-fat compounds are eliminated 	<ul style="list-style-type: none"> • Easier to handle/pump - reduced agitation • Reduced process maintenance and cleanup cost – extend run times, simplify cleaning, etc.
Clean & Green! Model for the inevitable scrutiny that will be focused on petfood in the future.	<ul style="list-style-type: none"> • No chemicals in our refining process • Focused on sustainability • ZERO waste – full circle process 	<ul style="list-style-type: none"> • Natural from start to finish • Sustainable process with large scale ease • Environmentally friendly technology • A model for petfood as scrutiny increases
Potential Health Benefits	<ul style="list-style-type: none"> • Reduced salts & metals 	<ul style="list-style-type: none"> • Possible joint and kidney health improvement



Bottom Line: **GOLD SHIELD™** RCF

- *Salmonella* contamination is a significant risk in pet food
- Best ways to reduce the risk are through a well-maintained high-quality manufacturing process and pure ingredients
- **GOLD SHIELD™** RCF has higher purity and offers many benefits
 - Bacteriostatic (reduced *Salmonella* risk)
 - Better palatability
 - Superior Stability / Shelf Life
 - Operationally beneficial
- Depending on the formulation, AOX and maintenance savings, and reduced salmonella hits, this may pay for itself...and more.

May we be your brand's best friend?



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Thank You!

www.petfoodsolutions.com

Direct Business Contact:

Craig.Grantham@petfoodsolutions.com

(916) 770-6527