



## "A BRAND'S BEST FRIEND"



Better SAFETY



Better QUALITY



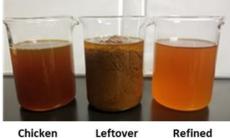
Better TASTE



# 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 Fa
Moisture (Avg wt-%)	0.40	0.18		Fatty Acid Profile (Avg wt-%)		
Insolubles (Avg wt-%)	0.08	0.24	7	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 Myyristoleic 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
				C16:2 Hexadecadienoic Acid	0.00	0.02
Metals and Salts				C17 Margaric Acid	0.11	0.09
Iron (ppm)	<1.0	1.8		C17:1 Maraoleic Acid	0.08	0.03
Magnesium (ppm)	<1.0	4.2		C18: Stearic Acid	5.83	5.99
Calcium (ppm)	5.1	15.9		C18:1 Oleic Acid	39.90	39.94
Phosphorus (ppm)	6.4	280.9	7	C18:2 Linoleic Acid	20.39	19.73
Sodium (ppm)	2.0	48.0		C18:3 Linolenic Acid	1.25	1.22
Potassium (ppm)	4.6	82.4		C20 Archidic Acid	0.06	0.08
Sulfur (ppm)	26.3	43.2		C20:1 Eiscosenoic 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					



Fat (CF)

Leftover Residue (LR)

Refined Chicken Fat (RCF)

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





#### GOLD SHIELD™ RCF: Value for Pet Food Producers

RCF Technology Feature	Benefit	Implications for Manufacturers
Bacteriostatic Properties	<ul> <li>RCF process kills bacteria and removes bacterial contaminants</li> <li>Inhibits future Salmonella growth</li> </ul>	<ul> <li>Improved Consumer Food Safety by limiting Salmonella product contamination - risk of recalls, etc.</li> <li>Lowers process &amp; plant worker risk of exposure</li> </ul>
Palatability Performance	<ul> <li>Superior in testing vs. standard higher-risk</li> <li>Chicken Fat</li> </ul>	<ul> <li>Optimize cost / inclusion of expensive palatants</li> <li>Dogs &amp; pet owners love the product</li> </ul>
Process Consistency = - Higher Purity - Much higher stability	<ul> <li>RCF process eliminates non-fat impurities</li> <li>Lot-to-lot uniformity – tighter specifications</li> <li>Far better shelf life &amp; product quality</li> </ul>	<ul> <li>Higher nutrient density = pure fat - no "extras"</li> <li>Minimize process variation, expense</li> <li>Significant cost savings on expensive AOX!</li> </ul>
Supports "Clean Label" E. U. Certification (Q320)	<ul><li>Labeled simply as "Chicken Fat"</li><li>Value for exporters</li></ul>	<ul> <li>No change, cost impact vs. current label</li> <li>Key benefit to serve markets beyond the U.S.</li> </ul>
Limits Need for Additives	<ul> <li>Minimized microbial load reduces need for chemical additives</li> </ul>	<ul> <li>Ingredient, handling, and process cost, simplification &amp; control</li> </ul>
Improved Process Efficiency	Residual, non-fat compounds are eliminated	<ul> <li>Easier to handle/pump - reduced agitation</li> <li>Reduced process maintenance and cleanup cost         <ul> <li>extend run times, simplify cleaning, etc.</li> </ul> </li> </ul>
Clean & Green!  Model for the inevitable scrutiny that will be focused on petfood in the future.	<ul> <li>No chemicals in our refining process</li> <li>Focused on sustainability</li> <li>ZERO waste – full circle process</li> </ul>	<ul> <li>Natural from start to finish</li> <li>Sustainable process with large scale ease</li> <li>Environmentally friendly technology</li> <li>A model for petfood as scrutiny increases</li> </ul>
Potential Health Benefits	Reduced salts & metals	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?





## Thank You!

www.petfoodsolutions.com

**Direct Business Contact:** 

<u>Craig.Grantham@petfoodsolutions.com</u>

(916) 770-6527