MUSIM MAS

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MASESTER® Medium Chain Triglycerides (MCTs) and MASEMUL® Glyceryl Monolaurate (GML)

Improving Animal Health and Nutrition

MASESTER® Medium Chain Triglycerides (MCTs) are derived by esterifying caprylic (C:8) and capric (C:10) fatty acids fractions from palm kernel or coconut oil with glycerol using a unique non catalytic process. These are further refined to remove residual fatty acids and then deodorized to make them completely odourless and tasteless.

MCTs are a high energy source which is efficiently absorbed in the small intestine of livestock and poultry.

This increase in available energy has been shown to improve the energy supply and performance of piglets.[1]

MCTs have antimicrobial properties against gram (-) and gram (+) bacteria: C. coli, E. coli Salmonella,[2,3] as well as virus pathogens SVA, PEDv, PRRSv.[2,3,4] MCTs are amphipathic, having hydrophilic and hydrophobic characteristic similar to the phospholipid bi-layer of the cell membrane.[5] This similarity enables MCTs to insert themselves into the bi-layer of the membrane causing pore formation within the cell membranes.[6] The pores allow for leakage of the intercellular content, which compromises the cell's integrity leading to lysis of the cell and eventual cell death.[7]

Supplementation of MCTs into feed rations or top dressing improves feed utilization efficiency and intestinal microbial health.

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MASEMUL® Glyceryl Monolaurate (GML) is a Medium Chain Monoglyceride with 12 carbon atoms formed by the combination of glycerol and lauric acid. GML has bactericidal, fungicidal, and virucidal properties; it is approved by the US Food and Drug Administration FDA as a non-toxic compound.

GML has strong antimicrobial activity as well as growth-promoting capacity, making it an ideal replacement for antibiotics helping growth, weight gain, and improved broiler chickens[8] and pigs' gut health.

- Inhibits gram(+) and gram(-) bacteria
- Effective over wide pH range
- Odourless and tasteless
- Promotes and improves gut health
- Safety
- Higher daily weight gain, improved feed conversion

Minimal Concentration (Reducing bacterial growth by 50% in vitro)

	Escherichia coli	Streptococcus suis	Salmonella poona	Clostridium perfringens
Medium Chain Triglycerides (MCTs)	0.30%	<0.2%	>1.0%	0.10%
Glycerol monolaurate (GML)	0.40%	0.10%	0.60%	0.10%

Source: Pig Progress, 17 October 2017

MASESTER® and MASEMUL® products for Animal health and Nutrition:

MASESTER® E 6000
MASEMUL® GML 9002

GMP+ B2 Certified, Non GMO and manufactured in FSSC2000 certified facilities.

References:
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