

Keto Creamer

KetoCreamer

Product brochure

*A new and better way of getting MCTs
in your diet and create those
empowering ketones!*



KetoCreamer

A new and better way of taking MCTs

KetoCreamer

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KetoCreamer

PRODUCT HIGHLIGHTS

KetoCreamer: An emulsion with benefits

This vegan emulsion-based products is designed to supplement your favorite beverage with Medium Chain Triglycerides (MCTs). These MCTs help the body to create ketones, like BHB, that serve as an alternative form of energy to glucose. To learn more about the impact of ketones, please visit www.ketogenicredients.com.

The emulsion is loaded with no less than 50% of our PalmFreeMCT (6040 or Pure C8) and is made with acacia fibers, pectin and a choice of flavors & stevia. Potassium Sorbate is added as a preservative.

Increasing bioavailability & Reducing side effects

Different studies show that an emulsified product helps to enhance the uptake of fats. For MCTs specifically, it was shown that an emulsified product may enhance the uptake 3-fold as compared to taking an oil. Moreover, the same study indicated that side effects, known to exist with higher intakes of MCT oil (like diarrhea), are significantly reduced or even vanished.



KetoCreamer

- Emulsion-based supplement delivering MCTs in a unique way to your consumers
- May help make MCTs more bioavailability
- Decreases side effects commonly experienced when taking MCTs
- Allergen Free
- Minimum 18 months shelf-life

Available in:

- Different flavors, current four flavors developed that fit with coffee or on a spoon
- 2 different bottles types

Applications

Though the product is developed to add to coffee (or tea), the applications can be much wider than this. For example, KetoCreamer can also be taken on a spoon or added to a variety of food products. Currently, we have 1 flavorless type and 3 different flavors with Vanilla, Almond and Hazelnut. Though the product has good stability, for optimal performance we recommend to shake-before-use.

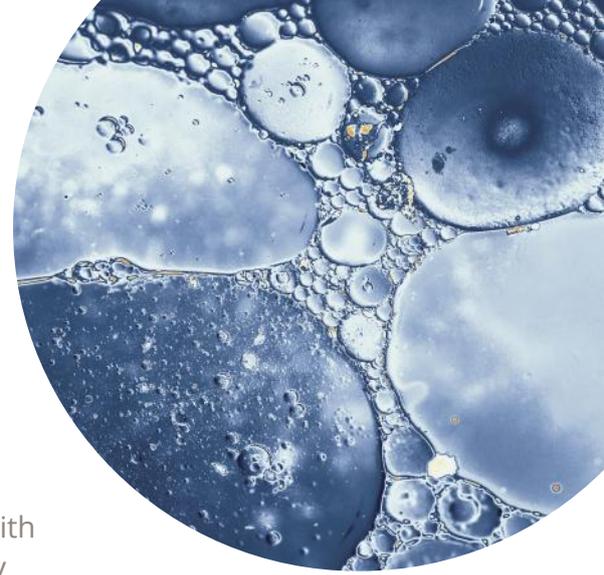
There are currently two (temper evident) bottle types available with a volume of 250ml each with other volumes available upon request.

KetoCreamer

ENHANCING BIOAVAILABILITY

The impact of emulsification

Our KetoCreamer is an emulsion based upon our PalmfreeMCT with acacia fibers & pectins. To create such an emulsion you make very fine droplets, that, as research shows, may also improve the bioavailability of the fatty acids and consequent Ketone response*. Researchers believe this to be due to improved access of digestive lipases that cleave the C8 & C10 fatty acids from the glycerol backbone, as has also been shown in Omega-3 rich emulsions.



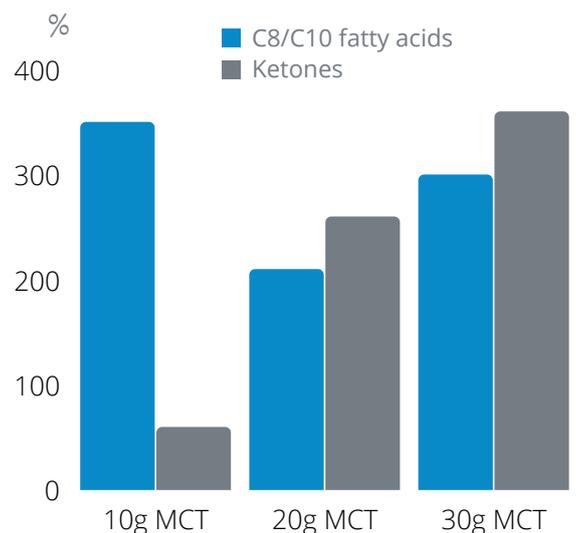
Set-up

Cross-over placebo controlled design where 10 healthy individuals were given a high-carb breakfast together with either emulsified or non-emulsified MCT's (60% C8, 40% C10). A 3 day wash-out period was taken in between treatments.

Emulsions were made using HP homogenizer based on skimmed, lactose-free milk and had an average droplet size of 0,7µM. Bulk MCT oil samples were gently mixed into the same milk, but without emulsification.

Measurements included C8 + C10 fatty acids and BHB in plasma during the first 120 minutes after the treatment (15 min intervals). Also side effects were recorded.

Improved bioavailability of MCT's



Relative improvement (%) in total plasma C8+C10 fatty acids and BHB ketones after ingesting emulsified MCT, compared to taking a non-emulsified format.



Percentage of testers suffering from some form of diarrhea after taking non-emulsified MCT.

NO diarrhea was reported when taking the emulsion.

More effective, Easier to take!

The science suggests that emulsified MCTs have improved fatty acid bioavailability with a factor 3 or more. For dosages of 10 or 20g MCT this also led to much higher Ketone levels, up to 3,6 fold higher, as compared to bulk oil. Interestingly enough, emulsification also proved to have less unwanted side effects, like diarrhea, which were not reported when using the emulsified version.

*Courchesne-Loyer et al, Emulsification Increases the Acute Ketogenic Effect and Bioavailability of Medium-Chain Triglycerides in Humans - Curr Dev Nutr 2017;1:e000851 | Johnson RC, Young SK, Cotter R, Lin L, Rowe WB. Medium-chain-triglyceride lipid emulsion: metabolism and tissue distribution. Am J Clin Nutr 1990;52:502-8. | Wieland TM, Lin X, Odle J. Emulsification and fatty-acid chain length affect the utilization of medium-chain triglycerides by neonatal pigs. J Anim Sci 1993;71:1869-74 | Odle J, Lin X, Wieland TM, van Kempen TA. Emulsification and fatty acid chain length affect the kinetics of [14C]-medium-chain

KetoCreamer

STABILITY RESEARCH

Providing a better-than-market stability

Our ketoCreamer is an emulsion containing 50% MCT oil with acacia & pectin as emulsifiers. With these emulsifiers, the emulsion can separate a bit over time. This is completely normal and a quick shake will solve this issue. An experiment was set up to see how LUS emulsion performed against the market standard (Acacia based MCT emulsion with 50% MCT).



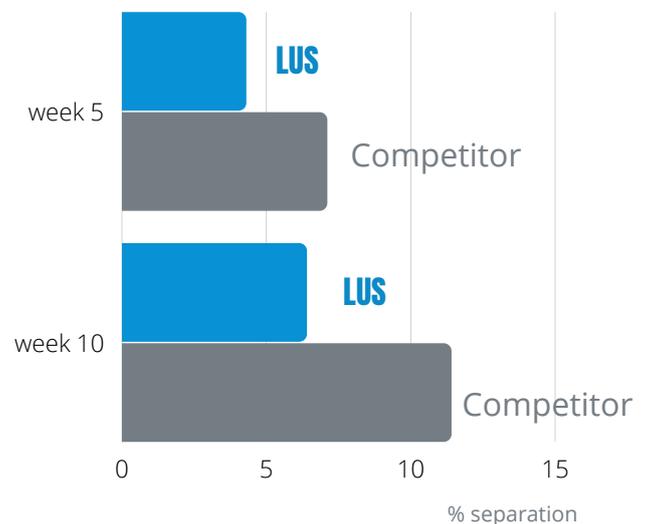
Set-up

Online we bought an acacia based emulsion, whereas the Lus emulsion was taken from a commercial production.

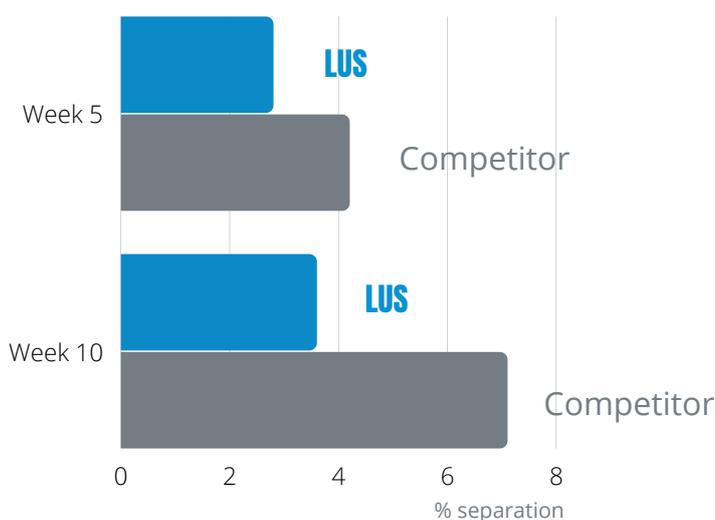
First, all bottles were shaken for 2 minutes exactly. Then the emulsion was decanted into a high glass bottles that were capped and consequently stored in either the fridge or at room temperature.

Every week the amount of separation was measured. At the start both emulsions showed no separation.

Room Temperature



Fridge



Results

The Lus emulsion showed a superior stability as compared to the market competition at room temperature and in the fridge. In general, lower temperatures seem to add more stability to both emulsions. Based upon this we recommend that the emulsion is shaken before use and consumers can store the emulsion in the fridge after opening.

**SHAKE
BEFORE USE**

KetoCreamer

Giving your hot drink a MCT energy Booster

Packaging options



Our KetoCreamer is an emulsified version of our PalmfreeMCT that is developed for use in a hot drink like coffee. We already designed four concept flavors that we believe work in this application, though we would love to co-develop your personal favorite. Our current options are:

Unflavored | **Vanilla** | Hazelnut | **Almond**

We can currently present 2 packaging formats that can be used for this power supplement. The production volume minimum is 250L.

PET Pharma Veral 250ml white 28ROPP - white

The first bottle option is a white classic bottle made of PET, standardly comes with a white HDPE cap with a pourer. The bottle can easily be squeezed, though this is not needed with the cream-like viscosity. Our standard offering is in 250ml but other bottle volumes can be sourced on request.

200-300ml | **White** | PET | pouring spout

Suggested label dimension: Width: 180mm Height 72 mm



PET Tall Boston Round - white

The second bottle option is a white slender bottle made of PET, comes with a white flip-top cap but is **not** standardly tamper evident. Our normal offering is in 250ml but other bottle volumes can be sourced on request.

200-300ml | **White** | PET | flip-top

Suggested label dimension: Width: 144mm Height 122 mm



KetoCreamer is an all vegan MCT formulation and fits in a ketogenic lifestyle.
Currently no EU health claims are allowed on MCTs



Guaranteed safety, quality and consistency by your trusted supplier Lus Health Ingredients.
Find out more at [Ketogenicingredients.com](https://ketogenicingredients.com), a brand of Lus Health Ingredients, or email us at info@ketogenicingredients.com

KetoCreamer

Order information

Product Code	Product Name	MCT type	Flavor	Bottle size	MOQ
4010	PL KetoCreamer 6040 Vanilla	PalmFreeMCT 6040*	Vanilla	250ml	1000 pieces
4011	PL KetoCreamer 6040 Neutral	PalmFreeMCT 6040*	None	250ml	1000 pieces
4012	PL KetoCreamer 6040 Hazelnut	PalmFreeMCT 6040*	Hazelnut**	250ml	1000 pieces
4013	PL KetoCreamer 6040 Almond	PalmFreeMCT 6040*	Almond	250ml	1000 pieces

* Also Available in PalmfreeMCT Pure C8

** Hazelnut flavor is not natural (all others are)

Future products

"This emulsified product is part of a technology platform that forms the base to develop a range of products. This goes further than developing new flavors, which I am sure we will do as well. I foresee combinations with other functional ingredients that can be positioned within the different markets we (will) serve!"

Lotte Brabander - NPD technician



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LUS

HEALTH INGREDIENTS

Helping to guide the change to healthy & sustainable food

Guaranteed safety, quality and consistency by your trusted supplier Lus Health Ingredients.
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