

**GOAT'S MILK LOTION WITH PALM VITAMIN E FOR DRY SKIN - TT NO. 63**  
**GOAT'S MILK CREAM WITH PALM VITAMIN E FOR NORMAL SKIN - TT NO. 64**  
**GOAT'S MILK SKIN FRESHENER - TT NO. 65**

by: **RUBRAH MASRI**



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Over the past years, natural or naturally derived cosmetic products have been swarming the market, replacing the synthetic based products. This change was mainly due to consumers' preferences towards natural, mild and plant derived products. This 'natural trend' is not unfounded as the main competitor, i.e., cosmetic products derived from petroleum could contain polyaromatic hydrocarbons which are toxic and carcinogenic to humans.

Besides being natural, palm based oleochemicals are also acceptable to all religions. This is in contrast to tallow or lard-based products, which are not acceptable by Hindus and Muslims.

Currently, palm-based oleochemicals, such as glycerin, fatty alcohol, fatty esters and fatty amine are widely used in cosmetics and personal care formulations to serve various purpose such as emulsifiers, humectants, emollients, lubricants, and conditioners.

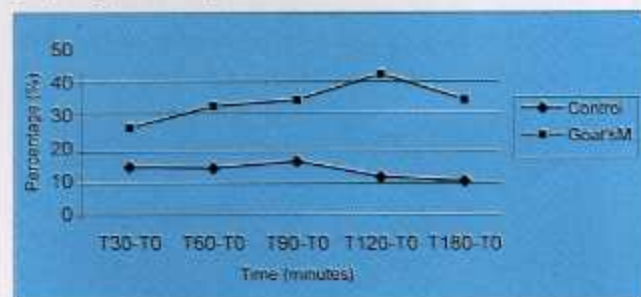
Goat's milk cream with palm vitamin E is formulated using palm-based oleochemicals of the highest grade and purity. To add value to the formulation the formula is enriched with goat's milk and palm vitamin E.

## GOAT'S MILK

Goat's milk has been widely known as a superior milk, second only to mother's milk. It contains essential fatty acids (linoleic and arachidonic acids) and a higher proportion of short chain and medium chain fatty acids. Unlike cow's milk, goat's milk does not contain agglutinin, a molecule which prevents the agglomeration and clustering of fat globules in milk, by facilitating digestion and absorption. For generations, goat's milk has been used for medicinal purposes such as to cure diarrhoea, asthma, bloat, and irritability ([www.chiroweb.com](http://www.chiroweb.com)). The nutrient composition of goat's milk is very different from cow's milk in that it contains 13% more calcium, 25% more vitamin B-6, 47%

more vitamin A, 134% more potassium, and 27% more selenium, and none of the controversial Bovine Growth Hormone (BGH).

The use of goat's milk in cosmetic products is not new. Currently, there are many imported brands mainly from New Zealand in the market. Applied topically, goat's milk is able to give moisturizing property to the skin. Besides, the presence of the nutrients mentioned above will make it more valuable to the skin. A study by Rosnah and Zafarizal (1999) as depicted in *Figure 1* indicated that a lotion formulated with goat's milk can dramatically increase skin hydration (implying good moisturizing property) in comparison to the control.



Source : Rosnah and Zafarizal, 1999

Figure 1: Percentage Increase in Hydration of Skin applied with Goat's Milk Lotion for Dry Skin and Control

## PALM VITAMIN E

The term vitamin E is a generic description for all tocopherol and tocotrienol derivatives qualitatively exhibiting the biological activity of  $\alpha$ -tocopherol. However, vitamin E extracted from palm oil is unique as it contains both tocopherols and tocotrienols. Palm vitamin E contains about 20-30% tocopherol with the rest being tocotrienols (Gapor, 1994). Tocopherol and tocotrienols have been shown to be an excellent antioxidants. They are good radical quenchers and are important for protection of unsaturated lipid peroxidation in biomembranes. Topically applied palm vitamin E helps protect the skin against oxidative damage.

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### Goat's milk lotion with palm vitamin E for dry skin (Figure 2)

This formulation is based on an earlier formula in TT No.33. However, this formulation has been further improved with addition of goat's milk to make it more moisturizing and more suitable for individuals with dry skin. This formula is basically an oil-in-water emulsion produced through a homogenization process.



Figure 2: Goat's Milk Lotion with palm Vitamin E for Dry Skin

### Goat's milk cream with palm vitamin E for normal skin (Figure 3)

This formulation is specifically developed for individuals with normal skin type, which is neither dry nor oily. Besides goat's milk and palm vitamin E, it contains an agent known as Natural Moisturizing Factor (NMF) to give an extra protection to the skin while imparting a smooth and silky feeling.



Figure 3: Goat's Milk Cream with palm Vitamin E for Normal Skin

### Goat's milk skin freshener (Figure 4)

Goat's milk skin freshener is intended to be used after cleansing the face with goat's milk soap or facial cleanser to close the exposed pores after cleansing. It is specifically developed to impart a smooth and soothing feel after application.



Figure 4: Goat's Milk Skin Freshener

## CONCLUSION

The interest in natural or naturally derived cosmetic products continue to increase as more people become aware of the possible side effects of animal or petroleum based products. The availability of renewable raw materials derived from palm oil will continue to support growth of the cosmetics and personal care industry in Malaysia. To add value to the formulation, the addition of palm vitamin E and goat's milk will definitely elevate the functionality of the cosmetic products.

## REFERENCES

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For more information kindly contact:

Director-General  
PORIM

P. O. Box 10620  
50720 Kuala Lumpur, Malaysia.