

# Pure and Simple

Efficient semi-occlusive and substantive cream

Trusted technical expertise enabled by DuPont™ Liveo™ Healthcare Silicone Solutions can enhance a range of healthcare industry solutions and are differentiated by a greater degree of testing, quality control and regulatory support.

Ref: 1710

This cream is a suitable matrix for drug delivery of hydrophilic active such as caffeine. This emulsion is smooth and comfortable, substantive and moisturizing while protecting<sup>1</sup> the skin.

Phase	Material Name	Chemical Description	No caffeine % w/w	With caffeine % w/w
A	Liveo™ Q7-9120 Silicone Fluid 20 cSt	Dimethicone	18.0	18.0
	Emulsifying Wax	Emulsifying Wax	10.0	10.0
B	Water	Water	62.5	62.0
	Euxyl® K712 <sup>1</sup>	Aqua and Sodium Benzoate and Sodium Sorbate	1.5	–
	Glycerin	Glycerin	8.0	8.0
	Caffeine	Caffeine	–	2.0

<sup>1</sup>Schulke

## Procedure

1. Mix ingredients of phase A and heat to 80°C
2. Mix ingredients of phase B and heat to 80°C
3. Add phase B to phase A under mixing
4. Cool to room temperature while mixing

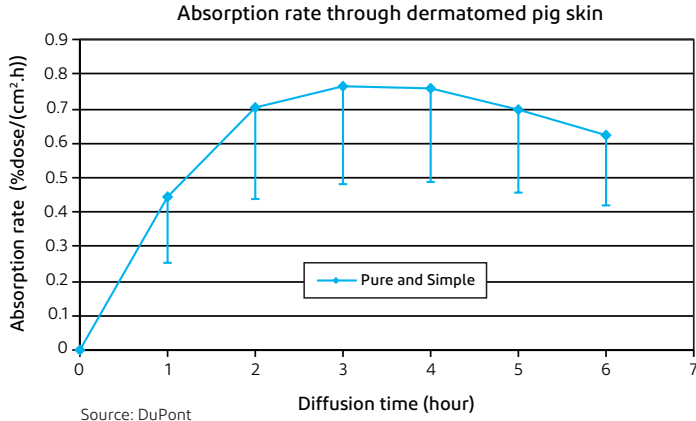
## Characteristics

Aspect	Cream
Color	White
Viscosity	16000 (20°C Brookfield DV II – Spindle 7 – speed 20)
Density (20°C)	0.94

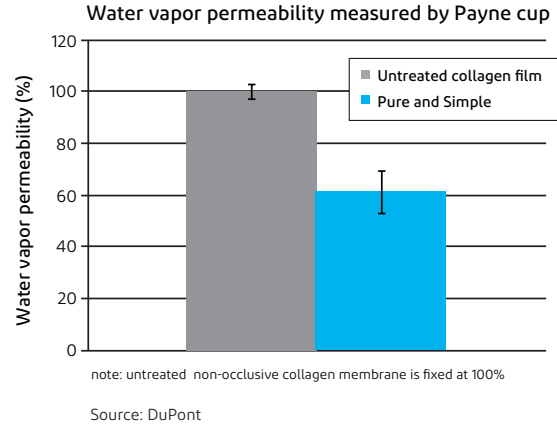
<sup>1</sup> Liveo™ Q7-9120 Silicone Fluid (Dimethicone NF) meets the requirements as skin protectant for over-the-counter human drug products (FDA monograph 21 CFR, Part 347.10)

## Performance and Patient Benefits

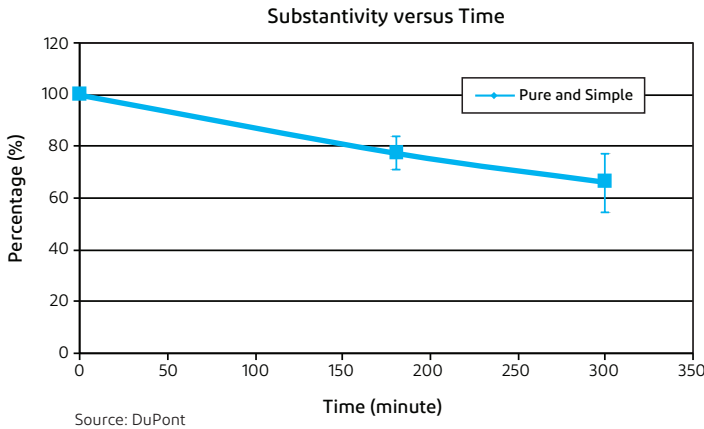
### Proven in-vitro skin penetration of caffeine



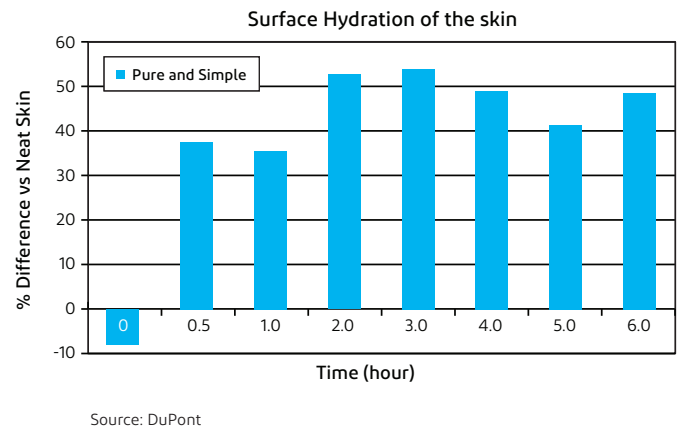
### Semi-occlusive cream



### Good substantivity



### Good skin hydration



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