



Personal Care Ingredients

# Luvitol® Lite

Cashmere soft feel  
Radiant looking skin  
Shiny smooth hair

 **BASF**

The Chemical Company

# Indulge yourself in a little luxury and appeal to your senses

with skin as soft as **cashmere** ...



... and hair as smooth as **silk**



## Luvitol Lite

- **Provides lightweight moisturization for a cashmere soft feel**

Luvitol Lite offers a pleasantly soft, non-oily skin sensation. When rubbed between the fingers, Luvitol Lite has satiny skin feel. Once dry, it leaves the skin feeling cashmere soft.

- **Maintains skin's natural water balance for a more radiant appearance**

Luvitol Lite provides advanced protection against moisture loss by acting as a barrier to help maintain the skin's natural moisture level. Increased hydration helps skin appear more radiant and supple.

- **Conditions hair to a silky smooth finish with enhanced shine**

Luvitol Lite conditions hair without build-up, making it ideal for everyday use. Its conditioning properties result in easy to comb, shiny smooth hair.

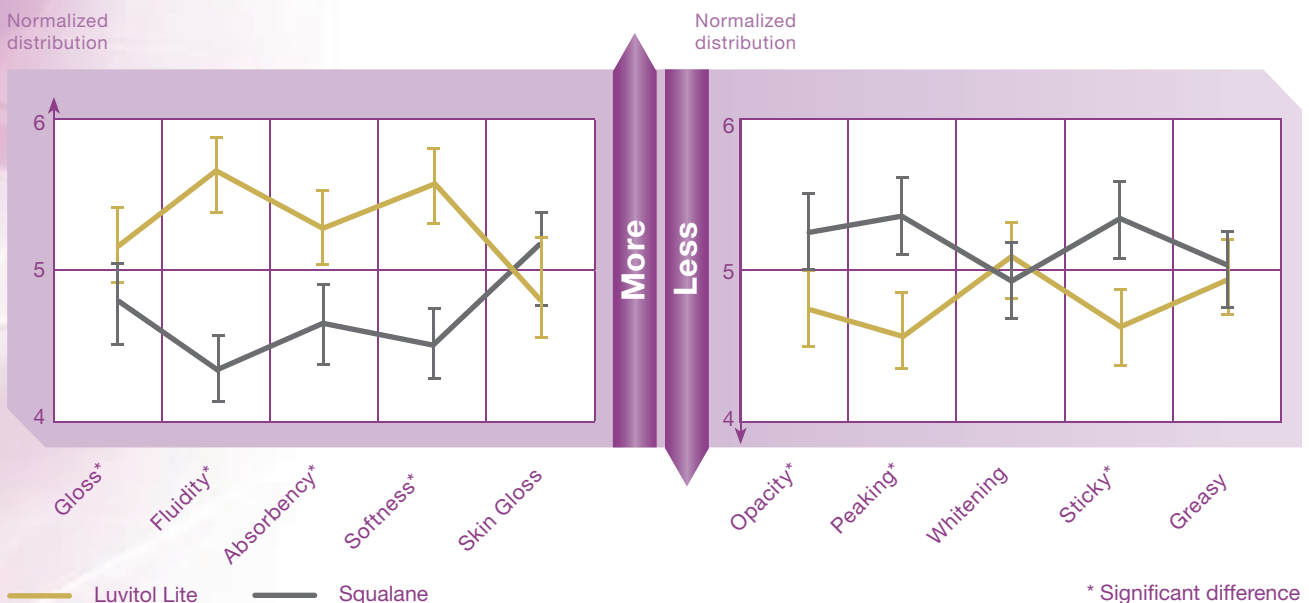
## Luvitol Lite – three times as appealing

# Consumer approved for skin

## Skin sensation

Consumers desire multi-functional products that offer immediate and noticeable benefits. In a skin sensory study conducted by Ecole de Biologie Industrielle, an expert panel noticed the benefits of Luvitol Lite.

Thirty-eight trained panelists evaluated identical formulations comparing Luvitol Lite to squalane. As shown below, the panelists clearly recognized the superior fluidity and quicker absorption rate of Luvitol Lite. The panelists also perceived a significant reduction in stickiness on the skin as well as a significantly softer skin feeling.

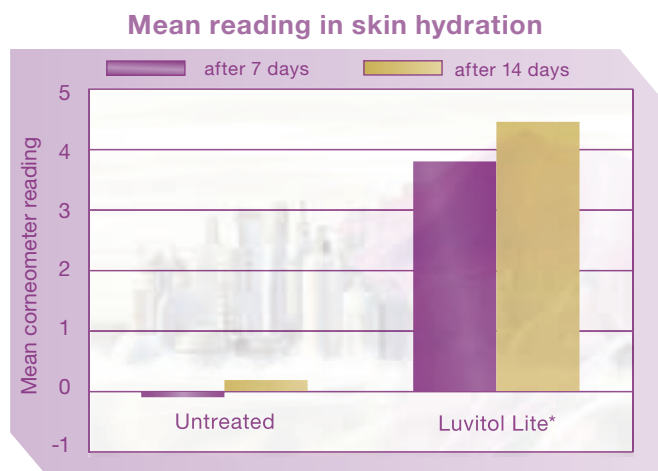


## Skin hydration

A skin efficacy test, conducted by Derma Consult GmbH showed that daily use of Luvitol Lite helps improve skin hydration. As shown, Luvitol Lite shows a 12% increase in skin hydration when compared to untreated skin.

Number of panelists: 20  
 Sex: female  
 Age: 29–62, average age 41.2  
 Test area: inner sides of forearms  
 Duration: 14 days  
 Application frequency: twice daily  
 Test instrument: corneometer  
 Measurement frequency: once per week

Panelists were treated with a spray emulsion formula containing 7% Luvitol Lite. Corneometer measurements were taken on day seven and day fourteen for a skin hydration comparison.



\* Significant difference to untreated skin

## Non-comedogenic

A comedogenicity test conducted by Clinical Research Laboratories, Inc. showed Luvitol Lite to be non-comedogenic making it an ideal choice for daily moisturizing applications.

# Improved spreadability



Luvitol Lite's superior spreadability and improved absorption rate reduce rub in time and improve skin sensation during and after application. The chart to the left reports the results of the investigation.

Ten µl of the test substance was added in the center of a 200x200 mm piece of filter paper. After ten minutes the area covered by the substance was marked, cut out and weighed. Using Paraffinium Perliquidium as the standard, spreadability was defined as:

$$\text{Spreadability} = \frac{\text{Area}_{\text{weight}} \text{ of test substance} \times 100}{\text{Area of standard}}$$

Paraffinium Perliquidium = 100

# Consumer approved for hair

## Hair conditioning

Thirteen volunteers with damaged hair received two hair conditioning products to be used on alternating days for two weeks. After each week, the participants answered a questionnaire regarding the products' performance.

When comparing Luvitol Lite to the control, the volunteers' good and very good responses were increased as follows:

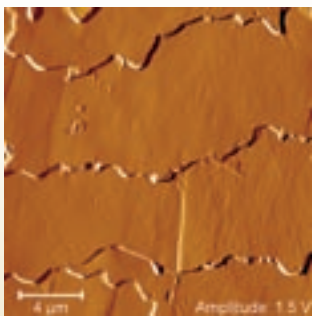
- 33 % for improved manageability
- 25 % for improved wash out
- 17 % for improved wet combability
- 14 % for improved dry combability
- 14 % for improved dry detangling

## Hair smoothing

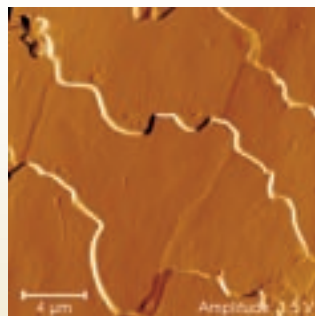
Luvitol Lite lightly coats the hair shaft helping to reduce hair's unevenness for a softer, smoother hairstyle.

## Hair shine

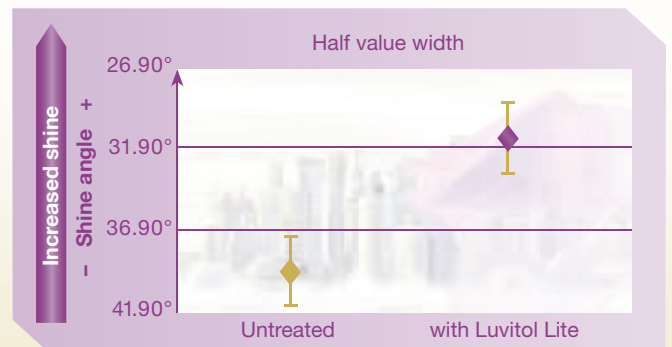
Luvitol Lite's ability to smooth hair scales reduces the amount of scattered light for more intense shine.



Untreated



Leave-on spray with Luvitol Lite



The smaller the angle – the greater the shine of the hair  
Hair shine measured via digital light intensity meter

# Luvitol Lite is multifunctional

## Key product functions

- Light emollient
- Protective moisture barrier
- Conditioner

## Consumer benefits

- Cashmere soft feel
- Radiant looking skin
- Shiny smooth hair

## Applications

**Whether formulating for men, women or children, Luvitol Lite is the perfect choice for personal care and cosmetic products such as:**

- lotions and creams
- hair conditioners
- facial cleansers
- cleansing shower oils
- moisturizing body oils
- UV protection and after sun products
- shampoos and body washes
- hair styling products
- color cosmetics
- mascaras
- foundations
- lipsticks, lip glosses, lip moisturizers

... and much more.

## Product highlights

Luvitol Lite is a new hydrogenated polyisobutene with a tailor-made chemical structure creating a product with three-dimensional functionality. Luvitol Lite serves as a light emollient, protective moisture barrier, and conditioner. Its molecular weight has been optimized to enhance skin sensation properties.

Luvitol Lite has a fresh low odor profile and is non-comedogenic. Its inert chemical structure is heat stable and compatible with a wide pH range and oxidizing conditions.

### Specifications

Test parameter	Value
Appearance	Clear liquid
APHA color	< 15
Specific density at 20 °C	0.78 – 0.81 g/cm <sup>3</sup>
Kinematic viscosity at 40 °C	3.5 – 4.0 mm <sup>2</sup> /s

# Formulation examples

## BASF formulation concept #1: Radiant Glow Daily Moisturizer 50/00186

Phase	%	Product	INCI
<b>A</b>	5.00	Luvitol® Lite	Hydrogenated Polyisobutene
	2.50	Cremophor® A 6	Ceteareth-6, Stearyl Alcohol
	1.50	Cremophor® A 25	Ceteareth-25
	5.00	Luvitol® EHO	Cetearyl Ethylhexanoate
	2.50	Lanette® 16	Cetyl Alcohol
<b>B</b>	3.00	1,2 Propylene Glycol Care	Propylene Glycol
	77.00	Water	Water
<b>C</b>	q.s.	Fragrance	Fragrance
	0.5	Euxyl® K 300	Phenoxyethanol, Methylparaben, Ethylparaben, Butylparaben, Propylparaben

### Manufacturing:

Heat phases A and B separately to about 80 °C.  
Stir phase B into phase A and homogenize shortly.  
Cool to about 40 °C, add phase C.

**Viscosity (Brookfield SP6): 3000 mPa · s    pH-value: 7.0**

## BASF formulation concept #2: Shine Enhancing Hair Conditioner 03/00129

Phase	%	Product	INCI
<b>A</b>	2.00	Luvitol® Lite	Hydrogenated Polyisobutene
	1.00	Cremophor® A 6	Ceteareth-6, Stearyl Alcohol
	1.00	Cremophor® A 25	Ceteareth-25
	1.50	Cutina® GMS	Glyceryl Stearate
	3.00	Mineral Oil	Mineral Oil
	5.00	Luvitol® EHO	Cetearyl Ethylhexanoate
<b>B</b>	5.00	1,2 Propylene Glycol Care	Propylene Glycol
	4.00	Luviquat® FC 550	Polyquaternium-16
	76.00	Water	Water
<b>C</b>	q.s.	Fragrance	Fragrance

### Manufacturing:

Separately heat phases A and B to about 80 °C.  
Stir phase B into phase A while homogenizing.  
Cool to about 40 °C while stirring, add phase C and homogenize shortly.

**Viscosity (Brookfield SP6): 6100 mPa · s    pH-value: 6.0**

# Formulation examples

## BASF formulation concept #3: Cashmere Cream 50/00178

Phase	%	Product	INCI
<b>A</b>	20.00	Luvitol® Lite	Hydrogenated Polyisobutene
	0.20	Pemulen® TR-1	Acrylates/C10-30 Alkyl Acrylate Crosspolymer
	0.50	Euxyl® PE 9010	Phenoxyethanol, Ethylhexyl Glycerine
	0.90	Luvigel® EM	Caprylic/Capric Triglyceride, Sodium Acrylates Copolymer
<b>B</b>	2.00	Cremophor® A 25	Cetareth-25
	5.00	1,2 Propylene Glycol Care	Propylene Glycol
	71.35	Water	Water
<b>C</b>	q.s.	Fragrance	Fragrance
	0.05	Sodium Hydroxide	Sodium Hydroxide

### Manufacturing:

Mix the components of phase A.

Mix and dissolve the components of phase B.

Stir phase B slowly into phase A.

Homogenize for a short time.

Neutralize with phase C and stir until homogenous.

**Viscosity (Brookfield SP6): 14000 mPa · s pH-value: 6.0**

## BASF Formulation Concept #4: Silky Touch Shower Oil 08/00631

Phase	%	Product	INCI
<b>A</b>	61.00	Luvitol® Lite	Hydrogenated Polyisobutene
	34.00	Zetesol® 100	MIPA-Laureth Sulfate, Laureth-4, Cocamide DEA
	5.00	Comperlan® KD	Cocamide DEA
	q.s.	Fragrance	Fragrance

### Manufacturing:

Weigh out the components of phase A and dissolve them clearly.

**Viscosity (Brookfield SP6): 50 mPa · s**

## **BASF SE**

Personal Care Ingredients Europe  
E-EMV/P - J550  
67056 Ludwigshafen, Germany  
personal-care-eu@basf.com  
Tel: +800 2273 4444  
Fax: +49 621 60 76992

## **BASF Corporation**

Personal Care Ingredients  
100 Campus Drive  
Florham Park, NJ 07932, USA  
personal-care-na@basf.com  
U.S. and Canada:  
Tel: + 1 800 880 5768  
Fax: + 1 973 245 6764  
Mexico:  
Tel: +1 800 723 3000  
Tel: +1 800 552 4288

## **BASF East Asia**

Regional Headquarters Ltd.  
Personal Care Ingredients  
45/F Jardine House  
No.1 Connaught Place  
Central, Hong Kong  
personal-care-hk@basf.com  
Tel: +852 2731 0190  
Fax: +852 2734 5639

## **BASF S.A. Brazil**

Regional Headquarters for South America  
Personal Care Ingredients  
Av. Brigadeiro Faria Lima, 3600  
04538-132 Sao Paulo, Brazil  
personal-care-sa@basf.com  
Tel: +55 11 3043 2248  
Fax: +55 11 3043 2255

# **Personal Care Ingredients**

Our assortment of personal care ingredients includes UV filters, active ingredients, cosmetic polymers, surfactants and effect pigments. With this range of high quality products, we are the partner of choice of the personal care industry in the areas of hair care, skin and sun care, oral care, shampoos and conditioners, and color cosmetics.

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