

TRY OUR
TRI-ESTER SPECIALTIES!

INNOVATIVE ESTERS

Protachem ISP

INCI: ISOSTEARYL PALMITATE

OIL SOLUBLE

Protachem ISL

INCI: ISOSTEARYL LINOLEATE

OIL SOLUBLE

Pro-Aqua ISL

INCI: ISOSTEARETH-200 LINOLEATE

WATER SOLUBLE



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FUNCTIONAL

EFFECTIVE

VERSITILE

UNIQUE

OIL AND WATER SOLUBLE ESTERS

PROTACHEM ISP

OIL SOLUBLE ESTER

Protachem ISP (*Isostearyl Palmitate*) is a non-comedogenic, saturated liquid emollient with an extraordinary skin feel and low freezing point. Virtually colorless, odorless, and tasteless, suggests ideal use in lip products.

In stick formulations, Protachem ISP provides excellent pour and mold-release properties, while imparting remarkable spreadability.

Protachem ISP functions as a co-solubilizer for silicones and waxes in sunscreens, and may be considered to be an “oil-free” ingredient for cosmetics.

When incorporated into creams or lotions at levels as low as 3%, Protachem ISP imparts a light, silky emolliency, eliminating the greasy feel of mineral oil or other heavier esters.



Protachem ISP is derived from renewable, non-animal source raw materials which is a real plus in today’s rapidly evolving consumer marketplace.

ELEGANT SILKY FEEL

PROTACHEM ISL

OIL SOLUBLE ESTER

Protachem ISL (*Isostearyl Linoleate*) is a medium viscosity plant derived ester with bi-functional properties (emolliency and moisturization).

It is an unusual emollient that combines the non-occlusive lubricity of a branched chain monoester with the full-bodied non-oily characteristics of a fatty acid ester.

Protachem ISL is derived from isostearyl alcohol and linoleic acid. Linoleic acid is required for maintenance of cutaneous barrier function. In insufficient amounts, skin becomes scaly, exhibits hyperproliferation and increased transepidermal water loss (TEWL).

Protachem ISL supplies this essential fatty acid to the skin which assists in repairing the Intercellular Moisture Barrier increasing the intrinsic moisturization of skin and reducing TEWL.

Protachem ISL has excellent pigment dispersing properties and may be used in various types of make-up, lip gloss, lipstick, mascara and blush formulations. It is highly recommended in creams or lotions where it can partially or totally replace mineral or plant oils that tend to be oily or greasy.

In sunscreen products, it can solubilize oil soluble sunscreen actives and helps to reduce the oiliness often associated with these products and provide a non-greasy emollient feel to skin while improving the water-resistant properties of the product.

MOISTURIZING

PRO-AQUA ISL

WATER SOLUBLE ESTER

Pro-aqua ISL (*Isosteareth-200 Linoleate*) is the sister product to our popular Protachem ISL (*Isostearyl Linoleate*) which is proven to deliver long-term moisturization to skin. Due to the highly lipophilic nature of Protachem ISL this effect was excluded from use in surfactant based hair and skin care formulations.



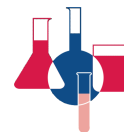
MOISTURIZATION CONDITIONING

HAIR - SKIN - BATH



With Pro-aqua ISL, you can now incorporate Isosteareth-200 Linoleate into these formulations, producing crystal clear shampoos, styling gels and pump sprays with enhanced shine and manageability and body washes, hand washes and gelled after sun conditioners with exceptional skin feel and moisturization benefits, without worrying about solubilizing the conditioning agents.

EXCELLENT CLARITY



TANNING SPRAY - DRY FEEL

Formula LP1/034

Protachem ISP (Isostearyl Palmitate) (Protameen)	39.8
Permethyl 99A (Isodecane) (Presperse)	15.0
Protachem CTG (Caprylic/Capric Triglycerides) (Protameen)	20.0
Carnation Mineral Oil (Witco)	9.5
Protaphenone - 3 (Benzophenone - 3) (Protameen)	4.0
Protachem OMC (Octyl Methoxycinnamate) (Protameen)	7.5
Protaphenone AVO (Avobenzone) (Protameen)	3.0
Vitamin E Acetate (Protameen)	0.5
Aloe Vera Oil Extract AO001 (Protameen)	0.5
Fragrance # 7c002181 (Cosmo International)	0.2

This formulation shows the benefit of Protachem ISP in reducing the greasiness of mineral oil containing products.

For more information contact:

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Deep Conditioner with Protachem ISL

This exceptional hair conditioner provides deep conditioning and is especially effective on chemically treated hair. The moisturizing properties of Protachem ISL in combination with the humectant properties of Protamide MEAA and Prochem 100-CG improve the appearance of damaged hair giving it a smoother, shinier and healthy appearance. It is designed to be left on the hair for 10 – 15 minutes and then rinsed off.

Part A

Deionized Water	Water	82.30
Protaquat BTMS	Behentrimonium Methosulfate(PROTAMEEN)	6.00
Protamide MEAA	Acetamide MEA(PROTAMEEN)	1.00

Part B

Protachem CO-40	PEG-40 Castor Oil(PROTAMEEN)	0.50
Procol SA-2	Steareth-2(PROTAMEEN)	0.50
Cetyl Alcohol	Cetyl Alcohol(PROTAMEEN)	2.00
Procol CS-20-D	Cetearyl Alcohol and Cetereth-20(PROTAMEEN)	2.00
Ultrasil IWC	Dimethiconol Hydroxystearate(NOVEON)	1.00
Protachem ISL	Isostearyl Linoleate(PROTAMEEN)	3.00

Part C

Prochem 100-CG	Hydrolyzed Collagen(PROTAMEEN)	0.20
Fragrance		0.50
Protacide NEO	Phenoxyethanol and Methylparaben and Ethylparaben and Propylparaben and Butylparaben(PROTAMEEN)	1.00

Procedure

- 1) Combine Part A with mixing and heat to 70° – 75°C
- 2) Combine Part B with mixing and heat to 70° – 75°C
- 3) When both parts are uniform add Part B to Part A with mixing.
- 4) Begin cooling to 40°C. Add Part C items one at a time.
- 5) Cool to RT.

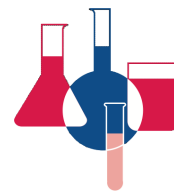
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Conditioning Shampoo HC04-036

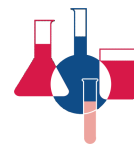
<u>Phase</u>		<u>% wt/wt</u>
A1	Purified Water	57.0
A2	Pro-Aqua ISL (Protameen)	2.0
A3	Protachem ES-2 (Protameen)	30.0
A4	Protamide HCA-A (Protameen)	4.0
A5	Proteric CAB LC (Protameen)	5.0
A6	Protachem GC-7 (Protameen)	1.0
A7	Protacide NEO (Protameen)	1.0
A8	Citric Acid	QS to pH 6-7
A9	Sodium Chloride	QS
		<hr/> 100.00

Procedure:

1. Heat A1 (water) to 60°C.
2. Add A2 and mix until completely melted and clear.
3. Add remaining ingredients A3-A7. Mix well after each additional until clear.
4. Adjust the pH to 6-7 using citric acid (A8).
5. Add Sodium Chloride (A9) to adjust viscosity as desired.

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HAND & BODY LOTION WITH PROTACHEM ISL

LP2/17

PHASE

A	Deionized Water	80.13
A	Protacide Na3 EDTA (Tetrasodium EDTA) (<i>Protameen</i>)	0.20
A	Glycerin (<i>Protameen</i>)	5.80
A	Methyl Paraben (<i>Protameen</i>)	0.20
A	Propyl Paraben (<i>Protameen</i>)	0.10
A	Ultrez 10 (Carbomer) <i>Lubrizol Dist. by Protameen</i>	0.20
B	Protachem ISL (Isostearyl Linoleate) (<i>Protameen</i>)	4.00
B	Stearic Acid (<i>Protameen</i>)	2.00
B	Protachem EGMS (Glycol Stearate) (<i>Protameen</i>)	1.50
B	Protalan AC (Cetyl Acetate & Acetylated Lanolin Alcohol) (<i>Protameen</i>)	0.50
B	Protachem GMS-450 (Glyceryl Stearate) (<i>Protameen</i>)	0.50
B	Cetyl Alcohol (<i>Protameen</i>)	0.10
B	DC556 (Phenyl Trimethicone) (<i>Dow Corning</i>)	1.00
B	Jojoba Oil – G (Jojoba Oil) (<i>Cascade Chemicals</i>)	1.00
C	TEA 99%	0.50
D	Aloe Powder TN003 (Aloe Vera) (<i>Protameen</i>)	0.05
D	DI Water	1.00
E	Protacide DMDMH (DMDM Hydantoin) (<i>Protameen</i>)	0.40
F	Blueberry Fragrance B7065 (<i>Carrubba</i>)	0.20
F	Protasorb L-20 (Polysorbate-20) (<i>Protameen</i>)	0.20
G	FD&C Blue #1 (0.2%)	0.32

Procedure:

Heat Phase A to 65° C. Heat Phase B to 65° C. Add B to A using homogenizing agitation. Switch to propeller mixing and add Phase C. Cool to 50° C and change to countersweep agitation. Cool to 40° C and add Phase D, Phase E, Phase F, and Phase G. Cool to room temperature.

This formulation incorporates **Protachem ISL**, a new moisturizing ester with excellent skin feel.

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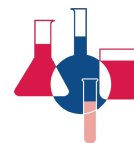
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SPF 15 LIP BALM

LP2/8

<u>PHASE</u>		<u>%</u>
A	Protachem ISL (Isostearyl Linoleate) (Protameen)	10.00
A	Protachem CTG (Caprylic/Capric Triglyceride) (Protameen)	60.20
A	Protachem OMC (Octyl Methoxycinnamate) (Protameen)	7.00
A	Protaphenone-3 (Benzophenone-3) (Protameen)	3.00
A	Propylparaben (Protameen)	0.10
A	DC AMS-C30 (C30-45 Alkyl Methicone) (Dow Corning)	4.00
A	SP-1190 (White Ozokerite Wax) (Strahl and Pitsch)	5.00
A	White Fonoline (Petrolatum) (Witco)	10.00
B	Fragrance Peach/Melon/Mango B7063 (Carrubba)	<u>0.70</u>
		100.00

Procedure: Combine all Phase A ingredients and heat to 80°C. Mix until uniform. Cool to 65°C and add the Phase B ingredient. Pour into suitable container.

This lip balm utilizes **Protachem ISL**, which soothes, moisturizes, protects and repairs the lipid barrier in dry, cracked, and irritated lips.

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