

PROTEGIN®

Cream base for the formulation of W/O creams

- Optimally balanced cream bases consisting of emulsifiers, waxes and paraffins
- Soft W/O creams with excellent skin care properties
- Creams with high heat and freeze stability

Personal Care

INCI name (CTFA name)

PROTEGIN® XN Paraffinum Liquidum (EU); Mineral Oil (US); Petrolatum; Ozokerite; Glyceryl Oleate; Lanolin Alcohol

PROTEGIN® W / PROTEGIN® WX Petrolatum; Ozokerite; Hydrogenated Castor Oil; Glyceryl Isostearate; Polyglyceryl-3 Oleate

Physical and chemical properties (not part of specifications)	PROTEGIN® XN	PROTEGIN® W	PROTEGIN® WX
Form	waxy	waxy	waxy
HLB value	approx. 3	approx. 3	approx. 3

Application

- The PROTEGIN® products, so-called absorption bases, are the result of long-term research and development work.
- Using the PROTEGIN® products, the preparation of creams with a high storage stability withstanding cold and heat is possible without any problems.
- The basic substances emulsifiers, waxes and mineral oils are optimally adjusted with regard to their physical and chemical properties and their proportional quantities.
- PROTEGIN® emulsions represent the traditional type of W/O creams. They have excellent skin care properties.
- In comparison to O/W creams they are slightly more difficult to rub and are absorbed more slowly by the skin.
- PROTEGIN® XN forms solid creams, PROTEGIN® W and PROTEGIN® WX soft creams. The X types have higher emulsifying activity. Cosmetic oils can be incorporated in emulsions based on PROTEGIN® XN in amounts of up to 5 %, in creams based on PROTEGIN® WX in amounts of up to 7 %.
- For optimal stability PROTEGIN® creams should contain roughly one third of the oil phase and two thirds of the water phase.
- Electrolytes, in particular magnesium sulphate heptahydrate (approx. 0.5 %), and 3.0 to 5.0 % glycerol or other polyols act as emulsion stabilizers.
- If vegetable or animal oils or fats are used, a suitable antioxidant agent should be added.

Preparation

Heat oil phase and water phase separately to 75 – 80°C, (if PROTEGIN® W types are used to 80 – 85 °C).

Add the water phase slowly to the oil phase stirring thoroughly, cool to 30 – 25 °C while stirring and homogenize using a colloid or roller mill.

If using modern combined machines which are equipped with planetary stirrers, scrapers and Rotor-Stator apparatus switch on the homogenizer 2 or 3 times for several minutes during cooling. Machines where filling can be combined with forced passage are preferred.

Add perfume and other temperature sensitive substances at 45 – 40 °C.

Water insoluble ingredients may be added to the emulsion before homogenization. These ingredients must be finally dispersed.

Storage/Handling

PROTEGIN® types tend to crystallization after storage time. This is reversible and has no negative influence on the quality. Short heating (85 °C) and stirring will provide adequate homogenization.

Recommended usage concentration

PROTEGIN® XN	25 – 30 %
PROTEGIN® W	28 – 30 %
PROTEGIN® WX	25 – 28 %

Packaging

600 kg pallet (30 x 20 kg box)

Hazardous goods classification

Information concerning

- classification and labelling according to regulations for transport and for dangerous substances
- protective measures for storage and handling
- measures in case of accidents and fires
- toxicity and ecological effects

is given in our material safety data sheets.

Guide Line Formulations

W/O Soft Cream	
Phase A	
PROTEGIN® WX	28.0 %
Perhydrosqualene	4.0 %
Phase B	
Glycerin	5.0 %
Magnesiumsulfate Heptahydrate	0.5 %
Water	62.5 %
Perfume, Preservative	q. s.

W/O Cream with Jojoba Oil	
Phase A	
PROTEGIN® WX	25.0 %
Jojoba (Buxus Chinensis) Oil	5.0 %
Phase B	
Glycerin	5.0 %
Magnesiumsulfate Heptahydrate	0.5 %
Water	64.5 %
Perfume, Preservative	q. s.

W/O Cream F 27/05-1	
Phase A	
PROTEGIN® XN	26.0 %
Mineral Oil (30 mPas)	4.0 %
Phase B	
Magnesiumsulfate Heptahydrate	1.0 %
Glycerin	5.0 %
Water	64.0 %
Perfume, Preservative	q. s.

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