

PROTEGIN® XN

Cream base for the formulation of W/O creams

Intended use

W/O Emulsifier

Benefits at a glance

- 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

INCI (PCPC 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 accidents and fires
- toxicity and ecological effects

is given in our material safety data sheet.

Guideline 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 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.

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.

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