COLD CREAM AND VANISHING CREAM

INTRODUCTION

• In USPXVIII, creams are defined as

" semisolid emulsions of either oil in water or water in oil type."

"semisolid emulsions usually medicated, intended for external application.".







a alamy stock photo

SKIN CARE CREAMS CLASSIFICATION

According to emulsion type:
1. W/O creams Eg: Cold cream(60-70% oil content)
2. O/W creams Eg: Vanishing cream(15-25% oil content) Eg - cleansing, foundation, moisturizing





SKIN CARE CREAMS CLASSIFICATION

According to function:

- (I) Cold creams
- (2) Cleansing creams
- (3) Cleansing milks
- (4) Cleansing lotions
- (5) Vanishing creams
- (6) Foundation creams
- (7) Emollient creams
- (8) Skin conditioning creams
- (9) All purpose creams
- (10) Moisturizing creams

VANISHING CREAM

- Vanishing cream gets the name from the fact that it leave no trace when rubbed on skin
- These are oil in water emulsions that contains large percentages of water and stearic acid or other oleaginous components.
- After application, the continuous phase evaporates, leaving behind a thin residue film of the stearic acid.





IDEAL PROPERTIES OF VANISHING CREAMS

High melting point
 Pure whiteness
 Very little odor and low iodine number
 Rubbed easily on the skin







FORMULATION INGREDIENTS: VANISHING CREAMS

Stearic acid

- Major component of vanishing cream
- Good quality triple pressed must be selected
- Soap formed in-situ by the reaction between a suitable alkali and stearic acid determines hardness of the cream.
- USE : Governs the consistency of the cream
- Humectants
- Glycerol most favored followed by sorbitol and propylene glycol
- USE: Prevents excessive drying out of cream
- USE: Prevents excessive drying out of cream



Examples are Potassium hydroxide, sodium hydroxide, sodium carbonate, triethanolamine and borax.

Potassium hydroxide is mostly used since makes a cream of fine texture without excessive harshness.

- Sodium or potassium hydroxide when used alone forms hard cream hence used always in combination.
- Borax used in combination with potassium hydroxide or triethanolamine to form white emulsion.
- Carbonates not favoured, liberates CO2 and creams become spongy.

STEARIC ACID PROVIDES OIL PHASE AND 20-30% OF FREE ACID NEUTRALIZED BY ALKALI

Emulsifier as soap from KOH (IN SITU) VANISHING CREAM in which oil phase melts above body temp and crystallizes as invisible form to give a non greasy and shiny layer on skin

FORMULATION OF VANISHING CREAM

• Ideal formula		1 20
Ingredients	Quantity (%w/w)	Category
Oil Phase		
Stearic acid, triple pressed	15.0 %	
Cetyl alcohol	0.50 %	Emollient, water-absorptive, and emulsifying properties
Isopropyl myristate	3.00 %	Nongreasy emollient
Aqueous Phase		
Sodium Hydroxide	0.18 %	Alkali
Potassium Hydroxide	0.50 %	Alkali
Glycerol	5.0 %	Humectant
Water	75.82 %	Vehicle
Perfume	q.s.	Fragrance
Preservative	q.s.	Antimicrobial

PROCEDURE

- Dissolve the sodium hydroxide and potassium hydroxide in water, add glycerol and preservative and heat to 80°C.
- In another vessel, melt the stearic acid, cetyl alcohol and isopropyl myristate (oily phase) and heat to 75°C.
- 3. Add the alkali solution to the melted oily phase with good agitation.
- 4. When the mixture has cooled to about 45°C, add the perfume and continue slow mixing until cool.
- 5. Cover and let it stand overnight. Remix briefly next day before packaging.

NOTE:

The alkali reacts with some of the stearic acid to form a soap which then acts as emulsifier.

The polyol (glycerol) prevents loss of moisture.

Sodium sterate crystals gives pearly shine.

PRODUCTS AVAILABLE IN MARKET







COLD CREAM

- It gives emollient ,soothing & cooling effect
- It protects and minimizes the effect of weather changes.
- It can be used as cleansing cream
- It can be used through all the year.
- Not suitable for oily skin.

COLD CREAM

- Cold cream is protective to the skin.
- Formula contains Borax and Beeswax.
- It is an emulsion of water in oil (w/o) type.
- Used as moisturizer, makeup remover and cleanser.
- The main principle of cold cream involves slow evaporation of water phase which leads to cooling sensation.
- Borax , beeswax are used as an emulsifying agent.





- Borax soap is obtained by free acids in the beeswax and borax (sodium borate).
- The sodium soap obtained gives oil in water (o/w) emulsion.
- On storage, PHASE INVERSION occurs and water in oil (w/o) emulsion cream is formed and this is often known as cold cream.
- On application, due to evaporation of water, cold sensation is observed, hence, it is called as cold cream.
- Oily film remaining on the skin gives emollient action and protection to the skin.





IDEAL CHARACTERISTICS OF COLD CREAM

- Should have optimum pH (4.6-6).
- Consistency should be optimum
- Should not be sticky
- Should be attractive in appearance
- Penetration through epidermis of skin should be desirable.
- Must be non-irritant and non-inflammatory.
- Should give cooling effects.



FORMULATION INGREDIENTS: COLD CREAM

- 1. Mineral oil (liquid paraffin)
- 2. White beeswax : Thickening agent and emulsifier (Base for the cream)
- 3. Borax: Used as emulsifier and responsible for the whiteness of cold cream.
- 4. Alcohol, glycerin, and lanolin
- 5. Perfume: Provides Fragrance

- Cold cream was traditionally based on a mixture of natural waxes and vegetable oils (beeswax and olive oil) stabilized with borax.
- At the turn of the century, mineral oil replaced the more unstable vegetable oils.
- In a cold cream the proportion of fatty and oily material predominates, but application to the skin results in a cooling effect which is produced from slow evaporation of the water contained in the emulsion.
- Replacement of part of the mineral oil with up to 15% of petroleum jelly can be used to produce different textures and consistencies. Further substitution with fatty acid esters such as isopropyl myristate improves the thixotropic behaviour of the cream, thus improving its spreading properties.

FORMULATION OF COLD CREAM

• Ideal formula

Ingredients	Quantity (%w/w)	Category
Oil Phase		
Mineral Oil (Liquid Paraffin)	45.0	Used as solvent and emollient
Beeswax	16	Thickening agent and emulsifier
Aqueous Phase		
Borax	1	Emulsifier and provide whiteness
Water	to 100	
Preservative	q.s.	Antimicrobial
Perfume	q.s.	Fragrance

PROCEDURE

- Heat the mineral oil and beeswax in a jacketed vessel at 75°C and maintain heat.
- In another container, dissolve borax and preservative in water and heat to 75°C (Aqueous phase).
- Slowly add this aqueous phase to the mineral oil-beeswax heated oily phase.
- Cool to 35°C and add perfume.

PRODUCTS AVAILABLE IN MARKET



USES

- For Vanishing cream
- Used as adhesive for makeup powders.
- Reduces loss of moisture from dry skin.
- Smoothens the skin and keeps it soft.
- Prevents skin from roughening and chapping.

For Cold cream

- Typically used to cleanse the face off makeup
- Heavily moisturises dry skin.
- Can also be used as a balm for dry cracked lips.
- It can also be used as a shaving cream alternative for men.

CLEANSING CREAM:

- used to clean make-up, surface grime, oil, and water and oil soluble soil efficiently, mainly from the face and throat before going to bed.
- layers of make-up, dust and sweat remain as coat on the face and do not let the skin breath, result in:
 - Clogging the pores and formation of comedons.
- Wrinkles and dullness.

FOUNDATION CREAM:

- It is not only hiding the spots
- It also makes the skin smooth so that make-up looks appealing and well-set on the face
- It is also available in many shades & available in liquid form

FACIAL SCRUBS CREAMS

 help clean the surface of the skin by removing the dead skin cells and the dirt mechanically.