

# COLD CREAM FORMULATION

**Principle:** Cold creams are typically beeswax-borax emulsions

They are so-called as cold cream because on application to skin the evaporation of water leads to cooling effect. When a solution of borax is added to molten beeswax emulsifying agent is formed because of wax acid and borax i.e. Wax acid is saponified by borax forming Na-soap (i.e. Na-soap of wax acid This agent is formed at the interface between oil & water, which emulsifies the mineral oil in water. It is because of beeswax, cream is able to contain appreciable amount of water. These are typically white creams of higher-class free from greasiness, which has firm consistency and on application they liquefy and spread easily.

This cream can be either o/w type (or) w/o type depending upon the ratio of water phase, 45% is considered to be the critical level of water phase, cream-containing water less than 45% is w/o type & cream with water phase more than 45% is o/w type of emulsion. Percentage of beeswax used ranges from 5-15% & borax 5-6% of w.t. of beeswax. Lesser amount of beeswax gives softer cream and higher amount give stiffer cream. Cold cream has got a neutral pH.

Both w/o & o/w emulsion can be obtained by beeswax borax which depends upon:

- Ratio of oil to water phase.
- Temperature of preparation.
- Amount of beeswax saponified.
- Other ingredient present.

**OBSERVATION TABLE**

<b>INGREDIENTS</b>	<b>OFFICIAL QTY</b>	<b>REQUIRED QTY</b>
Bees Wax	80g	2g
Mineral Oil	490ml	12.25ml
Soft Paraffine	70g	1.75g
Cetyl Alcohol	10g	0.25g
Borax	4g	0.1g
Water	346ml	8.65ml
Perfume	Qs	Qs



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**Procedure:** Take 2.16 gm beeswax, 1.89 gm of soft paraffin, 0.27 gm of cetylalcohol 13.2 ml mineral oil in a clean dry vessel and heat on water bath to 80°C. Dissolve borax in water in another vessel and heat simultaneously with the oil phase to 70°C. Add the aqueous phase to oil phase slowly with rapid stirring. Continue stirring slowly after the additions of aqueous phase until the cream has cooled to about 50°C. Add the per fume, mix well. Weigh out 25 gm of cream and fill into jar. At the time of filling the cream, it should have cooled to 40-42°C.

**Category:** Humectants.

**Storage:** Store in a cool and dry place.

**Direction:** "For external use only"

**Uses:** To prevent loss of water for dry skin especially during winter and skin smoothener.

For more details: [click here](#)