

Oily creams

Oily creams are protective and emollient in nature. Oily cream, cold cream and oily glycerol cream are bases of this type. Such bases are not suitable for the presentation of water-soluble antiseptics. They may be used for local protectives (e.g. calamine, zinc oxide) and for the application of some oil-soluble medicaments (e.g. camphor, menthol, methyl salicylate).

Aqueous creams

Aqueous creams can effectively deliver medicaments to body surfaces. Creams may become concentrated through loss of water, so caution must be exercised in relation to the strengths of caustic medicines used with them. Creams are watermiscible and readily removed by washing.

Aqueous creams may be used for water-soluble antiseptics (e.g. chlorhexidine), water-soluble local anaesthetics and most other dermatological agents.

In the use of aqueous creams, it must be recognised that the water present may reduce the stability of many medicaments and encourage the growth of micro-organisms unless suitable preservatives are included. The preservatives specified in aqueous creams may be replaced by suitable alternative antimicrobial preservative agents provided the name and concentration of the alternative agent used are stated on the label.

Care must be taken to avoid contamination during preparation. The apparatus used in the preparation of creams, and the final containers, should be thoroughly cleansed, rinsed in freshly boiled and cooled water, and dried. Purified water used in the preparation of creams should be freshly boiled and cooled before use.

Aqueous creams may be classified according to the chemical type of the emulgent used.

Anionic creams

Anionic creams contain emulgents which yield large anions and therefore are potentially incompatible with cationic drugs. An ion-pair is likely to be formed between the anionic emulgent and the cationic drug, and this may reduce either the efficacy of the emulgent or the activity of the drug (see 'Emulsifiers and stabilisers', Section A). Aqueous cream is a cream of this type.

Cationic creams

Cationic creams contain emulgents which yield large cations and therefore are potentially incompatible with anionic drugs. An ion-pair is likely to be formed between the cationic emulgent and the anionic drug, and this may reduce either the efficacy of the emulgent or the activity of the drug (see 'Emulsifiers and stabilisers', Section A). Cetrimide cream aqueous is a cream of this type.

Non-ionic creams

Non-ionic creams contain emulgents which yield virtually no ions. The emulgents are often polyoxyethylene esters or ethers. These creams are usually compatible with both anionic and cationic drugs. Cetomacrogol cream aqueous is a cream of this type.

aluminium acetate cream oily

Burrow's cream

aluminium acetate solution 5 mL
zinc oxide..... 20 g
wool fat 25 g
arachis oil..... 25 mL
purified water, freshly boiled and cooled 27 mL
These quantities make 100 g of cream.

Method: Melt the wool fat with the arachis oil with the aid of gentle heat. Triturate the zinc oxide with this mixture until smooth and allow to cool. Mix the aluminium acetate solution and the purified water and incorporate into the oil phase.

Use: Mild antipruritic in subacute dermatitis.

Label: Label N: CONTAINS PEANUT OIL.

aqueous cream

*simple cream; Hydrous emulsifying ointment;
Ung. Emulsif. Aquos. (UEA)*

emulsifying ointment 30 g
glycerol 5 mL
phenoxyethanol 1 g
purified water, freshly boiled and cooled to 100 g

When this product is ordered with cationic drugs (see 'Emulsifiers and stabilisers', Section A), it should be replaced by cetomacrogol cream or aqueous cetrimide cream.

Method: Melt the emulsifying ointment and mix with 5 mL of glycerol and 60 mL of purified water heated to approximately 70 °C. Stir until a semi-solid cream forms, then add the phenoxyethanol and adjust to 100 g with the purified water. Mix thoroughly.

Use: Anionic base, emollient. May be a useful vehicle for incorporating drugs such as sulfur, salicylic acid, phenol and coal tar.

buffered cream aqueous

sodium phosphate 2.5 g
citric acid monohydrate 0.5 g
chlorocresol 0.1 g
emulsifying ointment 30 g
purified water, freshly boiled and cooled to 100 g