

PASTES

Pastes are semi-solid suspension preparations intended mainly for application to the skin. They are made up from simple or complex bases in which is usually suspended the drug substance as powder with particle size of 90, 125, or 160 μm . Pastes are distinguished from suspension ointments due to their different content of dispersed solid particles; ointments have a maximum of 25 % solid content while pastes have usually higher than 25 % (practically up to 50 %).

Depending on their consistency, pastes are distinguished to soft and hard. Depending on the type of base, pastes are distinguished to oleo pastes and hydro pastes and more specifically to oleo cream-pastes or hydro cream-pastes when the base is oleo cream or hydro cream respectively.

From a rheological point of view, pastes usually reveal a dilatant, resp. rheopectic flow behaviour (when stress is applied, the viscosity increases), which can be a problem during processing and application.

Pastes are used as covering and adsorption preparations, for the localization of dermatological drugs effect, for the protection of skin from the harmful effects of excreta, etc. Unless otherwise stated, Yellow or White soft paraffin are used as bases for the preparation of pastes.

Ph.Eur. text:

SEMI-SOLID PREPARATIONS FOR CUTANEOUS APPLICATION

Pastes

DEFINITION

Pastes are semi-solid preparations for cutaneous application containing large proportions of solids finely dispersed in the basis.

PASTES COMPOUNDING

Pastes are prepared with the same instructions as the for suspension ointments.

The general procedure consists in mixing the powder(s) with a semi-solid base and carefully homogenizing.

1. A solid powder of the prescribed size (number in brackets) is weighed and transferred to a stainless-steel bowl. If more than one solid is prescribed, mixing is initially performed in a porcelain mortar and the homogeneous mixture of solids is then transferred in stainless-steel bowl.
2. A semi-solid base or base is weighed into another stainless-steel bowl and melted as required in a water bath or under an infra-red lamp.
3. In accordance with the *general principles of 1: 1 mixing*, the powders are mixed with the melted base or a hydrophobic liquid component, possibly with a liquid miscible with the base (*levigating agent*) and intensive a concentrated suspension is prepared by trituration (*levigation*).
4. Under constant stirring, homogeneous mixture is obtained. A three-roll mill or other suitable device is possible to be used for paste homogenization.