

and suitable for purpose. External products which do not contain potent ingredients are normally applied liberally when required. Therefore, an application frequency of four times a day would be suitable for the treatment of nappy rash.

3. Calculation of formula for preparation

Prepare 20 g of Zinc Ointment BP.

Product formula

(from the *British Pharmacopoeia* 2004, p 2809):

	Master	100 g	10 g	30 g
Zinc Oxide BP	150 g	15 g	1.5 g	4.5 g
Simple Ointment BP	850 g	85 g	8.5 g	25.5 g

Tips

The exact quantity cannot be prepared for an ointment as losses will be experienced on transfer. Therefore, a suitable overage must be produced in order to dispense the required amount.

Tips

The Zinc Oxide BP is transferred to a mortar so that the size of any lumps can be reduced enabling a smooth product to be made.

Tips

To triturate means to mix. A smooth product will be produced if the Zinc Oxide BP is finely sifted and then just mixed with the base. The particle size reduction of the Zinc Oxide BP in this example has only been achieved by mixing in a mortar, rather than sifting with a sieve. In order to achieve a smooth product, considerably more lateral shearing force will need to be applied to the powder and we suggest that the process employed would be more akin to levigation (wet grinding), but in this case using a semi-solid base rather than a molten base.

4. Method of preparation

- a. Solubility where applicable
Not applicable.
- b. Vehicle/diluent
Simple Ointment BP is used as the diluent as per the product formula.
- c. Preservative
There is no preservative included as per the product formula.
- d. Flavouring when appropriate
Ointments are for external use and so no flavouring is required.

The following method would be used to prepare 30 g of Zinc Ointment BP from the formula above:

1. Weigh 4.5 g Zinc Oxide BP on a Class II or electronic balance.
2. Transfer to a porcelain mortar and stir with a pestle.
3. Transfer the Zinc Oxide BP to a glass tile.
4. Weigh 25.5 g Simple Ointment BP on a Class II or electronic balance.
5. Transfer the Simple Ointment BP to the glass tile.
6. Triturate the Zinc Oxide BP with the Simple Ointment BP until a smooth product is formed.
7. Weigh 20 g of the product and pack into a collapsible tube or amber glass jar. Label and dispense.