with *water*. Neutralise 50 ml of this solution to *litmus paper* with 5M *ammonia solution*, add 5 ml of *ammonia buffer pH 10.9* and 100 ml of *water* and titrate with 0.05M *disodium edetate VS* using *mordant black 11 solution* as indicator. Each ml of 0.05M *disodium edetate VS* is equivalent to 4.068 mg of ZnO.

Calculate the weight of the paste taken from the Weight of paste (g m^{-2}) and the Weight per unit area of fabric (g m^{-2}) determined above.

Zinc Paste and Ichthammol Bandage

Defintion Zinc Paste and Ichthammol Bandage consists of cotton fabric of plain weave, evenly impregnated with a suitable paste containing not less than 6% w/w of Zinc Oxide and containing 2.0% w/w of Ichthammol. The fabric is bleached to a good white, is reasonably free from weaving defects and contains not more than traces of leaf residue, seed coat and other impurities. It is in one continuous length. The edges are cut evenly, parallel to the warp threads, or may be serrated and are reasonably free from long loose threads. The warp and weft yarns have counts not finer than 15 tex and 25 tex respectively.

Fabric

Fibre identification The dried material obtained in the test for Weight per unit area complies with the tests for *cotton*, Appendix XX A.

Threads per 10 cm Warp, 109 to 131, Appendix XX C1, Method II; weft, 73 to 90, Appendix XX C1, Method I.

Weight per unit area Not less than 39 g m^{-2} when determined by the following method. Measure the area of a sample weighing about 10 g. Boil the sample in *water* until the soluble ingredients in the mass have completely dissolved and the insoluble ingredients have become loosened, add sufficient 2M *hydrochloric acid* to remove any adhering zinc oxide, decant the liquid through a tared sieve with a nominal mesh aperture of 106 µm, transfer the residual fabric to the sieve, wash thoroughly with *water* and dry to constant weight at 105°. Calculate the weight of fabric, in g m^{-2}, making allowance for serrated edges if present.

Paste

Weight Not less than 150 g m^{-2}, calculated from the weight and area of the sample and the weight of fabric obtained in the test for Weight per unit area.

Content of zinc oxide, ZnO Not less than 6.0% when determined by the following method. Ignite 6 g of the bandage until all the carbon is removed, cool the residue, dissolve in 30 ml of 2M *nitric acid* and dilute to 250 ml with *water*. Neutralise 50 ml of this solution to *litmus paper* with 5M *ammonia solution*, add 5 ml of *ammonia buffer pH 10.9* and 100 ml of *water* and titrate with 0.05M *disodium edetate VS* using *mordant black 11 solution* as indicator. Each ml of 0.05M *disodium edetate VS* is equivalent to 4.068 mg of ZnO.

Calculate the weight of the paste taken from the Weight of paste (g m^{-2}) and the Weight per unit of area of fabric (g m^{-2}) determined above.

Zinc Paste Bandage

Definition Zinc Paste Bandage consists of cotton fabric of plain weave evenly impregnated with a suitable paste containing not less than 6% w/w of Zinc Oxide. The fabric is bleached to a good white, is reasonably free from weaving defects and contains not more than traces of leaf residue, seed coat and other impurities. It is in one continuous length. The edges are cut evenly, parallel to the warp threads, or may be serrated and are reasonably free from long loose threads. The warp and weft yarns have counts not finer than 15 tex and 25 tex respectively.

Fabric

Fibre identification After removal of the paste, complies with the tests for *cotton*, Appendix XX A.

Threads per 10 cm Warp, 109 to 131, Appendix XX C1, Method II; weft, 73 to 90, Appendix XX C1, Method I.

Weight per unit area Not less than 39 g m^{-2} when determined by the following method. Measure the area of a sample weighing about 10 g. Boil the sample in *water* until the soluble ingredients in the mass have completely dissolved and the insoluble ingredients have become loosened, add sufficient 2M *hydrochloric acid* to remove any adhering zinc oxide, decant the liquid through a tared sieve with a nominal mesh aperture of 106 µm, transfer the residual fabric to the sieve, wash thoroughly with *water*, and dry to constant weight at 105°. Calculate the weight of fabric, in g m^{-2}, making allowance for serrated edges if present.

Paste

Weight Not less than 150 g m^{-2} when determined by the method for *weight of adhesive mass*, Appendix XX D3, using Method I of Appendix XX D2, the determination being carried out using *water* as the first solvent. In bandages with a serrated edge, make allowance for the area of serration.

Content of zinc oxide Not less than 6.0% when determined by the following method. Boil 6 g of the bandage with 150 ml of *water* for 5 minutes, add 30 ml of 2M *nitric acid*, decant the liquid on to a Buchner funnel, wash the material and the filter with warm *water* until the washings are free from nitrates, return any loose threads or fibres retained on the filter to the bulk material, evaporate the combined filtrate and washings to 200 ml, cool and dilute to 250 ml with *water*. To 50 ml add 1 g of *ammonium chloride*, 1 g of *ammonium oxalate* and sufficient 5M *ammonia* to make the solution just alkaline to *litmus paper*, add a further 5 ml of 5M *ammonia*, heat to boiling, allow to stand for 1 hour, filter and wash the residue with hot *water*. Dilute the cooled, combined filtrate and washings to 150 ml with *water*, add 5 ml of *ammonia buffer pH 10.9* and titrate with 0.05M *disodium edetate VS* using *mordant black 11 solution* as indicator. Each ml of 0.05M *disodium edetate VS* is equivalent to 4.068 mg of ZnO.

Decant the titrated liquid through a sieve with a nominal mesh aperture of 106 µm, return any loose threads or fibres retained by the sieve to the bulk material, wash the residual fabric with several successive small quantities of *chloroform*, dry at 105° and weigh the residue. The difference between the weights represents the weight of paste taken. Calculate the percentage of ZnO in the paste.