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Petroleum jelly — Specification



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Foreword

Uganda National Bureau of Standards (UNBS) is a parastatal under the Ministry of Trade, Industry and Cooperatives established under Cap 327, of the Laws of Uganda, as amended. UNBS is mandated to co-ordinate the elaboration of standards and is

- (a) a member of International Organisation for Standardisation (ISO) and
- (b) a contact point for the WHO/FAO Codex Alimentarius Commission on Food Standards, and
- (c) the National Enquiry Point on TBT Agreement of the World Trade Organisation (WTO).

The work of preparing Uganda Standards is carried out through Technical Committees. A Technical Committee is established to deliberate on standards in a given field or area and consists of representatives of consumers, traders, academicians, manufacturers, government and other stakeholders.

Draft Uganda Standards adopted by the Technical Committee are widely circulated to stakeholders and the general public for comments. The committee reviews the comments before recommending the draft standards for approval and declaration as Uganda Standards by the National Standards Council.

This Draft Standards DUS 191:2015 was developed by UNBS/TC 5-Chemical and environment.

Petroleum jelly — Specification

1 Scope

This Draft Uganda Standard specifies the requirements and methods of sampling and test for petroleum jelly for cosmetic use.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

DEAS 346, Labelling of cosmetics — General requirements

DEAS 377-2, Cosmetics — List of substances which must not form part of the composition of any cosmetic product.

DEAS 377-3, Cosmetics — List of substances which cosmetics must not contain except subject to the restrictions and conditions laid down.

ASTM D217– 10, Standard Test Methods for Cone Penetration of Lubricating Grease

3 Description

Petroleum jelly is a translucent, soft mass, greasy to touch and it retains these characteristics on storage.

It may contain fragrances or herbal extracts/ powder.

4 Quality Requirements

4.2 General requirements

4.2.1 All the ingredients used shall conform to the requirements in *DEAS 377-2* and *DEAS 377-3*.

4.2.2 Solubility

Petroleum jelly shall be insoluble in water and ethanol (96%), but soluble in diethyl ether, dichloromethane, benzene, carbon disulphide, hexane and chloroform.

4.2.3 Colour

Petroleum jelly may be coloured using substances conforming to *DEAS 377-2* and *DEAS 377-3*.

4.2.4 Odour

The material shall be not of an objectionable odour at room temperature when rubbed on the skin.

4.2.5 Bleeding

Petroleum jell shall not bleed under normal conditions of storage.

4.3 Specific requirements

4.3.1 Petroleum jelly shall conform with the requirements given in Table 1, when tested according to methods given in Annex A. Reference to the relevant clauses of Annex A is given in the third column of the table.

Table 1 — Requirements for petroleum jelly for cosmetic use

Characteristics	Requirements		Method of test (Clause number to be referred)
	Pure	Herbal/perfumed	
Kinematic viscosity at 100°C Cst	4 — 6.8	4 — 6.8	A.2
Melting point °C	46 to 60	46 to 60	A.3
Specific gravity at 60°C, g/cc	0.815 to 0.880	0.815 to 0.880	A.4
pH	4.5 – 7.0	4.5 – 7.0	A.5
Saponifiable matter	NIL	NIL	A.6
Organic acids	To pass the test	To pass the test	A.7
Sulphated ash, % by mass, max	Not greater than 0.10	Not greater than 0.15	A.8
Sulphur and sulphides	To pass the test	To pass the test	A.9
Iodine Value (Wijs) max, units:	1.5	1.5	A.12
Light absorption of 0.005 per cent w/v solution in 2,2,4-trimethyl-pentane at 290nm,max	Not greater than 0.8	Not greater than 0.8	A.13
Cone penetration value at 25°C	100-275 1/10mm in checking for consistency and hardness of jellies	100-275 1/10mm in checking for consistency and hardness of jellies	ASTM-D 217
Volatile matters, % m/m, max.	5	5	A.14

4.3.2 The products shall conform to the limits for contaminants in accordance with Table 4.

Table 4: Limits for contaminants in petroleum jelly for cosmetic use

S/N	Contaminant*	Requirement	Method of test
1	Lead, mg/kg, max	20	Annex C
2	Arsenic, mg/kg, max	2	Annex D
3	Mercury, mg/kg, max	2	Annex E

*The total amount of heavy metals as lead, mercury and arsenic, in combination, in the finished product shall not exceed 20 mg/kg.

4 Sampling and sample preparation

The method of sampling and preparing representative test samples of the material and the criteria for conformity shall be as prescribed in Annex B.

5 Packaging

Petroleum jelly shall be packaged in containers that shall protect the contents, effectively screen the content from UV light when stored and shall not cause any contamination or reaction with the product.

The containers shall be securely closed.

The net content shall be in accordance with the Weight and measures regulations of the Partner States.

6 Labelling

In addition to the labelling requirements of DEAS 346, the following information shall be indelibly and legibly marked on the container:

- a) Product name that is "Pure, Perfumed and/or Herbal Petroleum Jelly";
- b) Net contents;
- c) Name and physical address of manufacturer, distributor or supplier and trade mark
- d) Lot identification e.g. batch number in code or otherwise;
- e) the date of manufacture in the form "mm/yyyy", and
- f) best before date in the form "mm/yyyy";
- g) Country of origin
- h) Indicate storage conditions

Annex A (normative)

Method of test for petroleum jelly for cosmetic use

A.1 Quality of reagents

Unless specified otherwise, analytical grade reagents and water of distilled quality (as described in EAS 123: 1999, Water-distilled quality — Specification) shall be employed in test.

A.2 Determination of kinematic viscosity 100°C – Using a capillary Viscometer

A.2.1 Determination

The kinematic viscosity is determined by using the viscometers. The specific details of operation vary for different types of viscometers.

A.2.2 Procedure

The time is measured for a fixed volume of sample, contained in a glass of viscometer, to flow through a calibrated capillary under an accurately reproducible head of liquid and at 100 °C. This temperature must be controlled. The viscometer selected should give an efflux time greater than 200 s. The kinematic viscosity is calculated from the measured efflux time. The viscometer is calibrated by using standard oil having viscosities established with reference to water in master viscometers or by direct comparison with carefully calibrated viscometers. The temperatures of the bath used shall be maintained within ± 0.01 °C.

A.3 Determination of melting point

A.3.1 Melt a quantity of the sample slowly while stirring until it reaches a temperature of 90 °C to 92 °C. Remove the source of heat and allow the molten sample to cool to a temperature of 8 °C to 10 °C above the expected melting point. Chill the bulb of a thermometer (range: 1 °C to 100 °C) to 5 °C, wipe it dry and while it is still cold, dip it into molten sample so that approximately half of the bulb is "submerged". Withdraw it immediately and hold it vertically away from heat until the wax surface dulls, then dip it for 5 min into a water bath having a temperature not higher than 16 °C.

A.3.2 Fix the thermometer prepared in A.3.1 securely in a test tube so that its lowest point is about 15 mm above the bottom of the test tube. Suspend the test tube in a water bath adjusted to 16 °C, and raise the temperature of the bath at a rate of 1 degree/min and note the temperature at which the first drop of the melted sample leaves the thermometer. Repeat the determination twice on a freshly melted portion of the sample. If the variation in three determinations is less than one degree take the average of three as the melting point. If the variation in the three determinations is more than one degree, make two additional determinations and take the average of the five.

A.4 Determination of specific gravity

A.4.1 Apparatus

A.4.1.1 Specific gravity bottle, 25 ml capacity, with a well- fitting ground glass stopper with a capillary.

A.4.1.2 Water bath, maintained at 60 °C ± 1 °C

A.4.2 Procedure

A.4.2.1 Clean and dry the specific gravity bottle, and weigh it. Then fill it with water, insert the stopper and immerse in the water bath at 60 °C ± 1 °C. Keep the entire bulb completely immersed in water and hold at that temperature for 1 h. Carefully remove any water which has exuded from the capillary opening. Remove from the bath, wipe completely dry, cool to room temperature and weigh.

A.4.2.2 Melt approximately 40 g of the material in a porcelain dish and fill the dry specific gravity bottle with it. Keep the bottle for 1 h in a water bath at 60 °C ± 1 °C. Carefully remove any material which exudes from the capillary opening, wipe the bottle dry and cool at room temperature and weigh.

A.4.3 Calculation

$$\text{Specific gravity } 60^{\circ}\text{C}/60^{\circ}\text{C} = \frac{m_1 - m_2}{m_3 - m_2}$$

Where

m_1 is the mass, in grammes, of specific gravity bottle with the material

m_2 is the mass, in grammes, of the specific of the gravity bottle

m_3 is the mass, in grammes, of the specific gravity bottle with water.

A.5 Acidity and alkalinity

A.5.1 Reagents

A.5.1.1 Phenolphthalein indicator solution, 1 % solution in 95 % rectified spirit.

A.5.1.2 Methyl orange indicator, dissolve 0.01 g of methyl orange in 100 ml of water.

A.5.2 Procedure

A.5.2.1 Take 35 g, of the sample in a 250 ml separating funnel. Add to it 100 ml of boiling water and shake vigorously for 5 min. Draw off the separated water layer in the beaker. Wash the sample further with two 50 ml portions of boiling water and add the washings again to the beaker. To the collective washings add one drop of phenolphthalein indicator solution and boil. If no pink colour is produced, add 0.1 ml of methyl orange indicator and see if any red or pink colour is produced.

A.5.2.2 The sample shall be taken to have passed the test if neither a red colour is produced with phenolphthalein nor a pink colour produced.

A.6 Determination of saponifiable matter

A.6.1 Reagents

- A.6.1.1 Methyl ethyl ketone, analytical grade, stored in amber coloured bottle.**
- A.6.1.2 Standard alcoholic potassium hydroxide solution, 0.5 mol/L standardized before use.**
- A.6.1.3 Petroleum ether, boiling range 80 °C to 100 °C.**
- A.6.1.4 Standard hydrochloric acid, 0.5 mol/L accurately standardized.**
- A.6.1.5 Phenolphthalein indicator solution, same as in A.5.1.1.**

A.6.2 Procedure

A.6.2.1 Accurately weigh in flask about 5 g of the sample and add 25 ml \pm 1 ml of methyl ethyl ketone, followed by 25 mL standard alcoholic potassium hydroxide solution from a burette. Connect the flask to a condenser and heat for half an hour after refluxing begins. Disconnect the condenser, add 50 ml of petroleum ether and titrate the solution while hot (without heating) with standard hydrochloric acid, using three drops of phenolphthalein indicator. When the indicator colour is discharged add three drops more of the indicator. If this addition restores the colour, continue the titration. Proceed in this manner until the end point is reached when the indicator colour is discharged and does not immediately reappear upon the addition of three more drops of indicator.

A.6.2.2 Run a blank under identical conditions.

A.6.2.3 The sample shall be taken to have passed the requirement prescribed in Table 1 if the blank reading does not differ from the sample reading by more than 0.1 ml.

A.7 Test for organic acids

A.7.1 Reagents

- A.7.1.1** Dilute rectified spirit, prepared by diluting one volume of 95 % rectified spirit with two volumes of water, and neutralized to phenolphthalein indicator.
- A.7.1.2 Phenolphthalein indicator, same as in A.5.1.1.**
- A.7.1.3 Standard sodium hydroxide solution, exactly 0.1 mol/L**

A.7.2 Procedure

A.7.2.1 Add 100 ml of dilute rectified spirit to 20 g of the sample, agitate thoroughly, and heat to boiling. Add 1 ml of phenolphthalein indicator and titrate rapidly with standard sodium hydroxide solution with vigorous agitation to a sharp pink end point in the alcohol water layer.

A.7.2.2 The material shall be taken to have passed the test if not more than 0.4 ml of standard sodium hydroxide solution is required for the titration.

A.8 Determination of sulfated ash

A.8.1 Reagents

Dilute sulfuric acid, approximately 2.5 mol/L

A.8.2 Heat a platinum dish to redness for 10 min; allow to cool in a desiccator and weigh. Place 1 g of the sample in the dish, moisten with sulfuric acid, and ignite gently by means of a Bunsen burner. Again moisten with sulfuric acid and ignite at about 800 °C in a muffle furnace. Cool and weigh, again ignite for 15 min and repeat this procedure until two successive weighings do not differ by more than 0.5 mg.

A.8.3 Calculation

$$\text{Sulfated ash, percent by mass} = \frac{m_1 \times 100}{m_2}$$

where

m_1 is the mass in grams of the residue;

m_2 is the mass in grams of the sample taken for the test.

A.9 Determination of sulfur and sulfides

A.9.1 Reagents

Copper strips, 1 cm in width, and freshly polished.

A.9.2 Procedure

A.9.2.1 Melt in a beaker about 100 g of the sample and keep on a water bath at a temperature of 95 °C. Then place a strip of copper in the melted sample so that it is partially immersed in it and allow to remain for 10 min.

A.9.2.2 The material shall be taken to have passed the test if the copper strip used in the test shows no tarnishing when compared with another freshly polished copper strip.

A.10 Determination of arsenic

A.10.1 Reagents

A.10.1.1 Concentrated sulfuric acid, reagent grade.

A.10.1.2 Concentrated nitric acid, reagent grade.

A.10.2 Preparation of sample

A.10.2.1 Weigh 2.00 g of the sample in a Kjeldahl flask of 500 ml capacity. Add 15 ml of concentrated sulfuric acid followed by 4 ml of concentrated nitric acid. Heat cautiously. Add drop-by-drop more nitric acid, if required, from a pipette to speed up the oxidation of the sample. The total amount of nitric acid shall be noted for use in control test. When oxidation is complete the solution is clear and faint yellow, at that stage, add 20 ml of water and again boil to fuming. Ensure removal of all nitric acid.

A.10.2.2 Carry out test for arsenic with the solution prepared in A.10.2.1 as described in EAS 101:2000 (see Clause 2). Compare the stain obtained with that produced with 0.004 g of arsenic trioxide.

A.11 Determination of heavy metals

A.11.1 Reagents

A.11.1.1 Ammonium acetate solution, 10 %.

A.11.1.2 Ammonium citrate solution, dissolve 8.75 g of citric acid in water, neutralize with ammonia and dilute with water to 100 ml.

A.11.1.3 Ammonium hydroxide, 10 % (m/m).

A.11.1.4 Potassium cyanide solution, 10 %.

A.11.1.5 Sodium sulfide solution, 10 %.

A.11.1.6 Standard lead solution, dissolve 16 g of lead nitrate in water and 10 ml of concentrated HNO₃ and dilute to 1000 ml. Pipette out 10 ml of the solution and dilute again to 1000 ml with water. 1 ml of the final solution contains 0.01 mg of lead (as Pb). The solution should be freshly prepared.

A.11.2 Procedure

A.11.2.1 In the preparation of sample treat 2.0 g of the sample as prescribed in A.10.2.

A.11.2.2 Take the solution prepared in A.11.2.1 in a Nessler tube (with 50 ml capacity); add 10 ml of ammonium acetate solution, (5 ml capacity); add 10 ml of ammonium acetate solution, 5 ml of ammonium hydroxide and 1 ml of potassium cyanide solution and dilute to 50 ml with water, then add two drops of sodium sulfide solution and mix well. In another Nessler tube carry out a control test using 4 ml of standard lead solution and same quantities of other reagents as used in the test with the material.

A.11.2.3 The material shall be taken to have passed the test as given in Table 1 if the intensity of colour produced with material is not greater than that produced in the control test.

A.12 Determination of iodine value

A.12.1 Apparatus

The material is treated with a known excess of iodine monochloride solution in glacial acetic acid. The excess of iodine monochloride is determined iodometrically. Thermometer, an engraved stem thermometer, calibrated between 10 °C and 65 °C in 0.1 degree intervals and with the 0 °C point marked on the stem is recommended. The thermometer shall have an auxiliary reservoir at the upper end, and length of about 370 mm and diameter of about 6 mm.

A.12.2 Reagents

A.12.2.1 Carbon tetrachloride or chloroform.

A.12.2.2 Acetic acid, glacial. 99 %, having a melting point of 14.8 °C and free from reducing impurities. Determine the melting point of the acetic acid and test it for reducing impurities as it follows:

a) Melting point determination — Take a 15 cm long test tube and fill it to about two thirds with the acetic acid. Insert into the acid a thermometer satisfying the requirements specified in A.12.1 through a cork stopper fitting the test tube. The amount of acid should be at least double the quantity required to cover the bulb of the thermometer when the bottom of the latter is 12 mm from the bottom of the test tube. Suspend this tube within a larger test tube through a cork. Cool the acid by immersing the assembly in ice water until the temperature is 10 °C, then withdraw the assembly from the ice water and stir the acid rather vigorously for a few moments, thus causing the super-cooled liquid to crystallize partially and give: a mixture of liquid and solid acid. Take thermometer readings every 15 s and consider the temperature at which the reading remains constant for at least 2 min as the true melting point.

b) Test for reducing impurities — Potassium permanganate test, dilute 2 ml of acetic acid with 10 ml of water and add 0.1 ml of 0.5 ml potassium permanganate solution and maintain at 27 °C ± 2 °C. The test shall be taken as having been satisfied if the pink colour is not discharged at the end of 2 h.

A.12.2.3 Potassium dichromate, finely ground.

A.12.2.4 Starch solution, mix 5 g of starch and 0.01 g of mercuric iodide with 30 ml of cold water and slowly pour it while stirring into 1 litre of boiling water. Boil for 3 min. Allow the solution to cool and decant off the supernatant clear liquid.

A.12.2.5 Standard sodium thiosulfate solution, 0.2 mol/L.

A.12.2.6 Chlorine gas, dry.

A.12.2.7 Iodine trichloride.

A.12.2.8 Wijs iodine monochloride solution, prepare this solution by one of the following methods, and store in a glass stoppered bottle in a cool place, protected from light and sealed with paraffin until taken for use.

a) Dissolve 3 g of re-sublimed iodine in 1 L of acetic acid, using gentle heat if necessary, and determine the length by titration with standard sodium thiosulfate solution. Set aside 50 ml to 100 ml of solution and introduce washed and dried chlorine gas into the remainder until the characteristic colour change occurs and the halogen content is nearly doubled as ascertained again by titration. If the halogen content has been more than doubled, reduce it by adding the requisite quantity of the iodine - acetic acid solution. A slightly excess of iodine does not harm, but avoid an excess of chlorine.

For example, if the titration of 20 ml of original iodine acetic acid solution requires 22 ml of standard sodium thiosulfate solution then 20 ml of the finished Wijs solution should require between 43 ml and 44 ml (and not more than 44 ml) of the same sodium thiosulfate.

b) As an alternative method of preparing Wijs solution dissolve 8 g of iodine trichloride in approximately 450 ml of acetic acid. Dissolve separately 9 g of iodine in 450 ml, of acetic acid using heat if necessary. Add gradually the iodine solution to the iodine trichloride solution until the colour has changed to reddish brown. Add 50 ml more of iodine solution and dilute the mixture with acetic acid till 10 ml of the mixture are equivalent to 20ml standard sodium thiosulfate solution when the halogen content is estimated by titration in the presence of an excess to potassium iodine and water. Heat the solution at 100 °C for 20 min and cool. Prevent access of water vapour in preparing the solution.

A.12.3 Procedure

Melt the material and filter through the filter paper to remove any impurities and the last trace of moisture. Make sure that the glass apparatus used is absolutely clean and dry. Weigh accurately by difference, about 10 g of the sample, into a clean, dry 500 ml glass stoppered bottle to which 25 ml of carbon tetrachloride or chloroform have been added, and agitate to dissolve the contents. Add 25 ml of Wijs solution (the quantity of Wijs solution added is 50 % - 60% more than the quantity required).

Replace the glass stopper after wetting with potassium iodine solution, swirl for intimate mixing, and allow to stand in the dark for 45 min. Carry out a blank test simultaneously under similar experimental conditions. After

standing add 15 ml of potassium iodide solution and 100 ml of water, and titrate the liberated iodine with standard sodium thiosulfate solution, swirling the contents of the bottle continuously to avoid any local excess, until the colour of the solution is straw yellow. Add 0.5 ml of starch solution and continue the titration until the blue colour disappears.

A.12.4 Calculation

$$\text{Iodine value} = \frac{12.69(V_1 - V_2)M}{m}$$

where

V_1 is the volume, in millilitre, of standard sodium thiosulfate required for the blank;

V_2 is the volume, in millilitre, of standard sodium thiosulfate solution required for the material;

M is the molarity of standard sodium thiosulphate; and

m is the mass, in grams, of the material taken for the test.

A.13 Determination of light absorption

A.13.1 Apparatus

UV spectrophotometer

A.13.2 Make of solution of 0.05 % m/v of the petroleum jelly in 2, 2, 4 – trimethylpentane, then determine the absorbency at 290 nm

A.14 Determination of volatile matter

A.14.1 Outline of the method

The sample is weighed in petri/glass dish and kept in an oven maintained at $105 \pm 1^\circ\text{C}$. The loss in mass is calculated as percentage of the mass of the sample taken.

A.14.2 Apparatus

A.14.2.1 Petri/Glass dishes — Made of heat resistant glass, 90 to 100 mm in diameter and 7 to 10 mm in height.

A.14.2.2 Thermometer — Any suitable thermometer having a range from 0 to 110°C .

A.14.2.3 Air-Oven — An electrically or gas heated air oven capable of maintaining temperature at $105 \pm 1^\circ\text{C}$

A.14.3 Procedure

Weigh about 10g of the sample, accurately to the nearest 0.1g, in a tare petri/glass dish, distributing the sample in as uniform a layer as possible with the help of a spatula over the whole of bottom of the dish. Keep it in the oven, maintained at $105 \pm 1^\circ\text{C}$ for 24 h. Cool and weigh the petri/glass dish to a constant mass.

A.14.4 Calculation and report

Calculate and report the evaporation loss as follows:

$$\text{Volatile matter per cent} = 100 \left(\frac{M_1 - M_2}{M_1} \right)$$

Where,

M_1 = mass in g of the sample taken for the test

M_2 = mass in g of the sample after the test

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Annex B (informative)

Sampling of petroleum jelly

B.1 General requirements of sampling

In drawing, preparing, storing and handling test samples the following precautions and directions shall be observed.

B.1.1 Samples shall not be taken in an exposed place.

B.1.2 The sampling instrument shall be clean and dry.

B.1.3 Precaution shall be taken to protect the samples, the materials being sampled, the sampling instrument and the containers or samples from adventitious contamination.

B.1.4 To draw representative sample, the content of each container selected for sampling shall be mixed as thoroughly as possible by suitable means.

B.1.5 The samples shall be kept in clean dry airtight glass or other suitable containers.

B.1.6 The sample containers shall be of such a size that they are almost completely filled by the sample.

B.1.7 Each sample container shall be sealed airtight with a suitable stopper after filling, and marked with full details of sampling, the date of sampling and the year of manufacture of the material.

B.2 Scale of sampling

B.2.1 Lot,

All the containers in a single consignment of the material drawn from a single batch of manufacture shall constitute a lot. If a consignment is declared or known to consist of different batches of manufacture, the containers belonging to the same batch shall be grouped together and each such group shall constitute a separate lot.

B.2.2 Samples shall be tested from each lot for ascertaining conformity of the material to the requirement of this specification

B.2.3 The number of containers (n) to be chosen from the lot shall depend on the size of the lot (N) and shall be as given in Table 2.

B.2.4 The containers to be selected for sampling shall be chosen at random from the lot and for this purpose, random number tables shall be used. In case such tables are not available, the following procedure may be adopted.

Starting from any container count 1, 2, 3 r and so on in a systematic manner, where r is the integral part of N/n Every r th container thus counted shall be withdrawn from the lot.

Table 2 — Number of containers to be selected for sampling (B2.3)

Lot size N	Number of containers to be selected, n
3 to 5	3
51 to 200	4
201 to 400	5
401 to 650	6
Greater than 650	7

B.3 Test samples and referee sample

B.3.1 Preparation of test samples

B.3.1.1 Draw with an appropriate sampling instrument a small portion of the material from different pans of each container selected (see Table 2). The total quantity of the material drawn from each container shall be sufficient to conduct the tests for all the characteristics given in Clause 3 and shall not be less than 250 g.

B.3.1.2 Thoroughly mix all portions of the material drawn from the same container. Out of these portions, equal quantities shall be taken from each selected container and shall be well mixed up together so as to form a composite sample weighing not less than 0.5 kg. This composite sample shall be divided into three equal parts, one for the purchaser, the supplier and the third for the referee .shall be used in case of dispute between the two.

B.4 Number of tests

Tests .for all the characteristics given in Table 1 shall be conducted on the composite sample.

B.5 Criteria for conformity'

A lot shall be declared as conforming to this specification if the composite sample satisfies the requirements for each of the characteristics listed in Table 1. If the requirements for any of the characteristics are not met, the lot shall be declared to have not satisfied the requirements of the specification.

Bibliography

- [1] British pharmacopoeia 1980
- [2] *IS 4887:1980*, Specification for Petroleum Jelly for cosmetic industry, published by Indian Standards Institution.
- [3] US pharmacopoeia 1980
- [4] *EAS 124:1999*, Rounding off numerical values
- [5] *EAS 123:1999*, Water-distilled quality — Specification
- [6] *EAS 101:2000*, Foodstuffs — Method of determination of arsenic

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Certification marking

Products that conform to Uganda standards may be marked with Uganda National Bureau of Standards (UNBS) Certification Mark shown in the figure below.

The use of the UNBS Certification Mark is governed by the Standards Act, and the Regulations made thereunder. This mark can be used only by those licensed under the certification mark scheme operated by the Uganda National Bureau of Standards and in conjunction with the relevant Uganda Standard. The presence of this mark on a product or in relation to a product is an assurance that the goods comply with the requirements of that standard under a system of supervision, control and testing in accordance with the certification mark scheme of the Uganda National Bureau of Standards. UNBS marked products are continually checked by UNBS for conformity to that standard.

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