

## Part 2: PT Matrices available



### EAC PROFICIENCY TESTING SCHEME ROUND 17, 2022

#### Part 2: PT Matrices available and their test parameters, and brief Notes on test methods

#### PART A: CHEMISTRY PT's

##### 1. FLOUR (MAIZE FLOUR & WHEAT FLOUR)

S/N	Test property	Brief Notes on The Parameter of The Test
1	Moisture	The loss of weight resulting from oven drying of flour sample at 105°C /130°C to constant weight
2	Crude protein	The total amount of protein in flour sample as determined using Kjeldahl method of nitrogen analysis
3	Crude fat	The total amount of fat in the flour sample was determined using the solvent extraction method after hydrolyzing the sample.
4	Crude fibre	The loss in weight upon incineration at 550°C of the oven-dried residue remaining after sequential digestion of flour sample with H <sub>2</sub> SO <sub>4</sub> and NaOH
5	Total ash	The inorganic residue remaining upon incineration of flour sample at 550°C - 600°C
6	Acidity of extracted fat	Quantity of acids, essentially non-esterified fatty acids, expressed in mg of KOH per 100g of dry matter
7	Gluten	The total content of gluten in the flour sample
8	Vitamin A	The total content of vitamin A in the flour sample
9	Copper	The total content of copper in a flour sample
10	Iron	The total content of iron in the flour sample
11	Zinc	The total content of zinc in the flour sample
12	Aflatoxin (maize flour)	Amount of aflatoxin B1, B2, G1, G2, and Total aflatoxin in a maize flour sample
13	Fumonisin	Amount of fumonisin in sample

## Part 2: PT Matrices available

### Contact details of Flour PT Providing Institution

Provider	Contact Person / PT Coordinator
Kenya Bureau of Standards P. O. Box 54974 – 00200 Popo Road off Mombasa Road Nairobi, KENYA Tel: +254 20 6948446/000 Fax: +254 20 604031/609660 Web: <a href="http://www.kebs.org">www.kebs.org</a>	Mr. Anthony Irungu/ Ashiambi Seruya  Organisational unit: Food and Agriculture Laboratory Tel.: +254 20 6948000/446 Fax: +254 20 604031/609660 Email: <a href="mailto:irungu@kebs.org">irungu@kebs.org</a> <a href="mailto:ashiambis@kebs.org">ashiambis@kebs.org</a>

## 2. ANIMAL FEED

S/N	Test property	Brief Notes on The Parameter of The Test
1	Moisture	The loss of weight resulting from oven drying of feed sample at 105°C /130°C to constant weight
2	Crude Protein	The total amount of protein in feed sample as determined using Kjeldahl method of nitrogen analysis
3	Crude Fat	The total amount of fat in the feed sample as determined using the solvent extraction method after hydrolyzing the sample.
4	Crude Fibre	The loss in weight upon incineration at 550°C of the oven-dried residue remaining after sequential digestion of feed sample with H <sub>2</sub> SO <sub>4</sub> and NaOH
5	Total Ash	The inorganic residue remaining upon incineration of feed sample at 550°C - 600°C
6	Acid Insoluble Ash	A measure of sandy matter in a feed
7	Calcium	The total content of calcium in the feed
8	Phosphorous	The total content of phosphorous in feed
9	Zinc	The total content of zinc in feed

### Contact details of PT Animal Feed providing Institution

Organisation	Contact Person
Kenya Bureau of Standards P. O. Box 54974 – 00200 Popo Road off Mombasa Road Nairobi, KENYA Tel: +254 20 6948446/000 Fax: +254 20 604031/609660 Web: <a href="http://www.kebs.org">www.kebs.org</a>	Mr. Anthony Irungu/ Ashiambi Seruya  Organisational unit: Food and Agriculture Laboratory Tel.: +254 20 6948000/446 Fax: +254 20 604031/609660 Email: <a href="mailto:irungu@kebs.org">irungu@kebs.org</a> <a href="mailto:ashiambis@kebs.org">ashiambis@kebs.org</a>

## Part 2: PT Matrices available

### 3. UHT MILK – physical-chemical analysis

S/N	Test property	Brief Notes on The Parameter of The Test
1	Milk fat	The proportion of milk by weight made of butterfat
2	Density at 20°C	The ratio of density to the density of standard substance (water) at 4°C
3	Protein	The total amount of protein in milk sample as determined using Kjeldahl method of nitrogen analysis
4	Total solids	Non-water components of the milk
5	Titrateable acidity	Total acidity of the milk
6	Freezing point depression	The value of freezing point depression of milk
7	pH variation on 5 days incubation	The difference in pH value before and after incubation of milk for 5 days at 55°C
8	Calcium	The total content of calcium in the milk sample
9	Lactose	The total content of lactose in the milk sample
10	pH	The pH value of the value of milk as determined by the use of a pH meter

#### Contact details of UHT MILK PT Providing Institution

Provider	Contact Person / PT Coordinator
Kenya Bureau of Standards P. O. Box 54974 – 00200 Popo Road off Mombasa Road Nairobi, KENYA Tel: +254 20 6948446/000 Fax: +254 20 604031/609660 Web: <a href="http://www.kebs.org">www.kebs.org</a>	Mr. Anthony Irungu/ Ashiambi Seruya  Organisational unit: Food and Agriculture Laboratory Tel.: +254 20 6948000/446 Fax: +254 20 604031/609660 Email: <a href="mailto:irungu@kebs.org">irungu@kebs.org</a> <a href="mailto:ashiambis@kebs.org">ashiambis@kebs.org</a>

### 4. EDIBLE OIL

S/N	Test property	Brief Notes on The Parameter of The Test
1	Nickel content	The total content of nickel in the oil sample
2	Copper content	The total content of copper in the oil sample
3	Moisture & volatiles content	The lost matter in the sample by weight after drying the sample to constant weight.
4	Refractive index	A number that describes how light propagates itself through the edible oil sample medium, measured with a refractometer. This value depends on temperature.
5	Iodine value	Mass of halogen, expressed as iodine, absorbed by the test portion of edible vegetable oil. Iodine value is expressed as grams per 100 g of oil.
6	Peroxide value	The total quantity of those substances in the edible vegetable oil sample, expressed in terms of active oxygen, that oxidize potassium iodide.

## Part 2: PT Matrices available

7	Density, relative	The density of the oil sample is expressed in multiples of the density of pure water at the same temperature as that of the test sample.
8	Acid value	The number of milligrams of potassium hydroxide required to neutralize the free fatty acids present in 1 g of fat, Acid value is expressed in milligrams per gram of edible oil sample.

### Contact details of edible oil PT Providing Institution

Provider	Contact Person / PT Coordinator
UNBS, Uganda National Bureau of Standards P.O. Box 6329 Plot M217 Nakawa Industrial Area Kampala, UGANDA Tel.: +256 414 505995/222367 Fax: +256 414 286123 Web: <a href="http://www.unbs.go.ug">http://www.unbs.go.ug</a>	Ms. Eva Namutebi / Mr. Amos Tumuheire Organisational unit: Chemistry Laboratory Tel.: +256 414333250/333251/333252 Email: <a href="mailto:eva.namutebi@unbs.go.ug">eva.namutebi@unbs.go.ug</a> <a href="mailto:amos.tumuheire@unbs.go.ug">amos.tumuheire@unbs.go.ug</a>

## 5. ALCOHOLIC BEVERAGE (GIN)

S/N	Tested property	Brief Notes on The Parameter of The Test
1	Alcohol content	Result expressed as %v/v, at 20°C of sample
2	Volatile acids as acetic acid	Result expressed as mg/Litre of absolute alcohol
3	Esters as ethyl acetate	Result expressed as mg/Litre of absolute alcohol
4	Aldehydes as acetaldehyde	Result expressed as mg/Litre of absolute alcohol
5	Methanol	Result expressed as mg/Litre of sample

### Contact details of Alcoholic beverage (Gin) PT Providing Institution

Organisation	Contact Person
UNBS, Uganda National Bureau of Standards P.O. Box 6329 Plot M217 Nakawa Industrial Area Kampala, UGANDA Tel.: +256 414333250/333251/333252 Web: <a href="http://www.unbs.go.ug">http://www.unbs.go.ug</a>	Ms. Eva Namutebi / Mr. Amos Tumuheire Organisational unit: Chemistry Laboratory Tel.: +256 414333250/ 333251/333252 Email: <a href="mailto:eva.namutebi@unbs.go.ug">eva.namutebi@unbs.go.ug</a> <a href="mailto:amos.tumuheire@unbs.go.ug">amos.tumuheire@unbs.go.ug</a>

## Part 2: PT Matrices available

### 6. EDIBLE SALT

S/N	Test property	Brief Notes on The Parameter of The Test
1	Calcium	Total calcium content in the sample as determined using EDTA titrimetric method or by AAS
2	Magnesium	The total magnesium content in the sample as determined using EDTA titrimetric method or by AAS
3	Moisture at 105°C	The lost volatile matter in the sample by weight after drying in an Oven at 105°C to constant weight
4	Sulphate	Total sulphate content as determined gravimetrically
5	Matter –Insoluble- in water	All matter insoluble in water that is retained during filtration of salt sample solution on porosity 4 glass sintered crucible.
6	Chloride (expresses as NaCl)	Total chloride expressed as NaCl determined by Argentometric titration
7	Iodate content (expressed as Iodine)	Determination of Total Iodate content expressed as Iodine. Determined using Thiosulphate titration

#### Contact details of Edible Salt PT Providing Institution

Provider	Contact Person / PT Coordinator
<p>TBS, Tanzania Bureau of Standards P.O. Box 9524 Morogoro/Sam Nujoma Roads, Ubungo Dar es Salaam, Tanzania Tel.: +255(22)2450298/2450206/2450949 Fax: +255 22 245 0959 Web: <a href="http://www.tbs.go.tz">www.tbs.go.tz</a></p>	<p>Ms Catherine Bulemo/ Ms Julieth Elibariki</p> <p>Organisational unit: Chemistry Laboratory Tel.: +255(22)2450298/2450206/2450949 Fax: +255 22 245 0959 Email: <a href="mailto:catherine.bulemo@tbs.go.tz">catherine.bulemo@tbs.go.tz</a> <a href="mailto:julieth.machenje@tbs.go.tz">julieth.machenje@tbs.go.tz</a></p>

### 7. FERTILIZERS

S/N	Test property	Brief Notes on The Parameter of The Test
1	Moisture content	Loss of weight by Vacuum desiccator Method using conc. H <sub>2</sub> SO <sub>4</sub> as a desiccant.
2	Total Nitrogen	Back titration of excess acid after displacement of ammonia using an excess Sodium hydroxide
	Ammoniacal Nitrogen	Back titration of excess acid after displacement of ammonia using an excess Sodium hydroxide after distillation of ammonia from alkaline solution.
3	Total Phosphorus	Total phosphorous by a gravimetric method using Quinoline phosphomolybdate solution @ 250 °C
4	Potassium as K <sub>2</sub> O	Determination of potassium by precipitation of potassium ions by excess Sodium Tetraphylborate (NaTPB) in a weakly alkaline medium.

## Part 2: PT Matrices available

### Contact details of Fertilizer PT Providing Institution

Provider	Contact Person / PT Coordinator
TBS, Tanzania Bureau of Standards P.O. Box 9524 Morogoro/Sam Nujoma Roads, Ubungo Dar es Salaam, Tanzania Tel.: +255(22)2450298/2450206/2450949 Fax: +255 22 245 0959 Web: <a href="http://www.tbs.go.tz">www.tbs.go.tz</a>	Ms Catherine Bulemo/ Ms Julieth Elibariki  Organisational unit: Chemistry Laboratory Tel.: +255(22)2450298/2450206/2450949 Fax: +255 22 245 0959 Email: <a href="mailto:catherine.bulemo@tbs.go.tz">catherine.bulemo@tbs.go.tz</a> <a href="mailto:julieth.machenje@tbs.go.tz">julieth.machenje@tbs.go.tz</a>

### 8. HONEY

S/N	Test property	Brief Notes on The Parameter of The Test
1	Moisture	This is a criterion that determines the stability of honey to spoilage and yeast formation. Measured by refractometer or oven
2	Hydroxymethylfurfural (HMF)	It is an indicator of the freshness of honey. Expressed in mg/kg
3	Ash content	The inorganic residue remaining upon incineration of the honey sample at 550°C - 600°C
4	Acidity	Free acids expressed in milliequivalents/kg of honey
5	Water-insoluble matter	Measures cleanness of honey as All matter insoluble in water that is retained during filtration of honey solution on porosity 3 glass sintered crucible
6	Relative density	Examines added materials other than honey, measured by pycnometer (density bottle)
7	Reducing sugar content calculated as invert sugar, % m/m,	Examine the amount of reducing sugar in honey as inverted sugar
8	Sucrose content	Examine the amount of sucrose in honey expressed in % m/m.
9	Fructose-glucose ratio	Examine the ration of fructose to glucose present in honey.
10	Lead	The total content of lead in honey expressed in mg/kg
11	Zinc	The total content of zinc in honey expressed in mg/kg

## Part 2: PT Matrices available

### Contact details of Honey PT Providing Institution

Provider	Contact Person/PT Coordinator
TBS, Tanzania Bureau of Standards P.O. Box 9524 Morogoro/Sam Nujoma Roads, Ubungo Dar es Salaam, Tanzania Tel.: +255(22)2450298/2450206/2450949 Fax: +255 22 245 0959 Web: <a href="http://www.tbs.go.tz">www.tbs.go.tz</a>	Emanuel Bakashaya/ Habakuki kalebo Organisational unit: Food Chemistry Laboratory Tel.: +255(22)2450298/2450206/2450949 Fax: +255 22 245 0959 Email: <a href="mailto:emanuel.bakashaya@tbs.go.tz">emanuel.bakashaya@tbs.go.tz</a> <a href="mailto:habakuki.kalebo@tbs.go.tz">habakuki.kalebo@tbs.go.tz</a>

### 9. FRUIT JUICE

S/N	Test property	Brief Notes on The Parameter of The Test
1	pH	It is approximately the negative of the base 10 logarithms of the molar concentration, measured in units of moles per litre, of hydrogen ions
2	Brix	Degrees Brix (symbol °Bx) is the sugar content of an aqueous solution
3	Alcohol content	The total amount of alcohol available in fruit juice indicates the degree of fermentation of the juice.
4	Acidity	The acid value obtained by titration
5	Ascorbic acid (Vitamin C)	Vitamin C, also known as ascorbic acid and L-ascorbic acid, is a vitamin found in food and used as a dietary supplement
6	Copper (as Cu)	The total content of copper in fruit juice expressed in mg/l
7	Arsenic (as As)	The total content of Arsenic in fruit juice expressed in mg/l
8	Lead (as Pb)	The total content of Lead in fruit juice expressed in mg/l

### Contact details of Fruit Juice PT providing Institution

Provider	Contact Person/PT Coordinator
TBS, Tanzania Bureau of Standards P.O. Box 9524 Morogoro/Sam Nujoma Roads, Ubungo Dar es Salaam, Tanzania Tel.: +255(22)2450298/2450206/2450949 Fax: +255 22 245 0959 Web: <a href="http://www.tbs.go.tz">www.tbs.go.tz</a>	Emanuel Bakashaya/ Habakuki kalebo Organisational unit: Food Chemistry Laboratory Tel.: +255(22)2450298/2450206/2450949 Fax: +255 22 245 0959 Email: <a href="mailto:emanuel.bakashaya@tbs.go.tz">emanuel.bakashaya@tbs.go.tz</a> <a href="mailto:habakuki.kalebo@tbs.go.tz">habakuki.kalebo@tbs.go.tz</a>



## Part 2: PT Matrices available

### 10. ELECTRIC CABLES

S/N	Test property	Brief Notes on The Parameter of The Test
1	Conductor resistance	Conductor resistance at 20 °C as determined using IEC 60227-2 or equivalent method
2	Insulation thickness	The thickness of the insulation of electric cable as determined using IEC 60227-2 or equivalent method

#### Contact details of Electric Cables PT Providing Institution

Provider	Contact Person / PT Coordinator
Tanzania Bureau of Standards P. O. Box 9524 Ubungu, Morogoro Road / Sam Nujoma Rd Dar es Salaam, Tanzania Tel.: +255 22 245 0298   +255 22 245 0206 Fax: +255 22 245 0959 Web: <a href="http://www.tbs.go.tz">www.tbs.go.tz</a>	Mr. Elington M. Elias  <b>Organisational unit:</b> Electrical Laboratory  Tel.: +255 753 682770 Email: <a href="mailto:elington.elias@tbs.go.tz">elington.elias@tbs.go.tz</a>

### 11. SOLAR PANELS

S/N	Test property	Brief Notes on The Parameter of The Test
1	Maximum power output	Performance at STC (by using simplified normalization) as per IEC 60904-1

#### Contact details of Solar Panels PT Providing Institution

Provider	Contact Person / PT Coordinator
Tanzania Bureau of Standards P. O. Box 9524 Ubungu, Morogoro Road / Sam Nujoma Rd Dar es Salaam, Tanzania Tel.: +255 22 245 0298   +255 22 245 0206 Fax: +255 22 245 0959 Web: <a href="http://www.tbs.go.tz">www.tbs.go.tz</a>	Mr. Elington M. Elias  <b>Organisational unit:</b> Electrical Laboratory  Tel.: +255 753 682770 Email: <a href="mailto:elington.elias@tbs.go.tz">elington.elias@tbs.go.tz</a>



## Part 2: PT Matrices available

### 12. SUGAR

S/N	Test property	Brief Notes on The Parameter of The Test
1	Polarization	An aqueous solution of the sugar is polarized using a saccharimeter which is calibrated to read 100°S on the International Scale under specified condition
2	Conductivity ash	An aqueous sugar solution of 28g/100g is prepared and its conductivity is determined at 20°C
3	Moisture content	The loss of weight resulting from air drying of a sample of sugar at 105°C for three hours to constant weight
4	Colour	The colour of filtered aqueous sugar solution is measured using a wavelength of 420 nm
5	Sulphur dioxide	The total residual Sulphur dioxide content as determined by a titration method
6	Water-insoluble matter	An aqueous sugar to be tested is filtered through a pre-weighed membrane filter of pore size 8µm. The membrane and the insoluble matter retained on it are thoroughly washed, dried in an oven to constant weight, and weighed.

#### Contact details of Sugar PT Providing Institution

Provider	Contact Person / PT Coordinator
Rwanda Standards Board P.O. Box: 7099 Kigali-Kicukiro, RWANDA  Tel: +250 252 582945 Fax: +250 252-583305 Web: www.rsb.gov.rw	Ms Egidia Nkezabera Organisational unit: National Quality Testing laboratories Tel.: +250 788777431/+250 788443238 Fax: +250 252-583305 Email: <a href="mailto:alphonse.mbabazi@rsb.gov.rw">alphonse.mbabazi@rsb.gov.rw</a> <a href="mailto:egidia.nkezabera@rsb.gov.rw">egidia.nkezabera@rsb.gov.rw</a>

### 13. LAUNDRY SOAP

S/N	Test property	Brief Notes on The Parameter of The Test
1	Free caustic alkali, as NaOH,	Result expressed as % m/m
2	Total free alkali, as NaOH,	Result expressed as % m/m
3	Moisture and volatile content, 105 °C	Result expressed as % m/m
4	Ethanol insoluble matter	Result expressed as % m/m
5	Matter insoluble in water	Result expressed as % m/m
6	Chloride content as NaCl	Result expressed as % m/m

## Part 2: PT Matrices available

### Contact details of Laundry Soap PT providing Institution

Provider	Contact Person / PT Coordinator
Rwanda Standards Board P.O. Box: 7099 Kigali-Kicukiro, RWANDA  Tel: +250 252 582945 Fax: +250 252-583305 Web: www.rsb.gov.rw	Ms Egidia Nkezabera Mr. Alphonse Mbabazi Organisational unit: National Quality Testing laboratories Tel.:+250 788777431/+250 788443238 Fax: +250 252-583305 Email: <a href="mailto:alphonse.mbabazi@rsb.gov.rw">alphonse.mbabazi@rsb.gov.rw</a> <a href="mailto:egidia.nkezabera@rsb.gov.rw">egidia.nkezabera@rsb.gov.rw</a>

### 14. SKIN COSMETIC LOTION

S/N	Test property	Brief Notes on The Parameter of The Test
1	Hydroquinone	Both qualitative and quantitative tests can be applied. Result expressed as % m/m or presence or absence
2	Thermal stability	Thermostatically controlled oven, capable of maintaining 37°C.
3	pH	It is approximately the negative of the base 10 logarithms of the molar concentration, measured in units of moles per liter, of hydrogen ions
4	Total fatty substance content	Result expressed as % m/m
5	Lead (as Pb)	The total content of Lead expressed in mg/l
6	Arsenic (as As)	The total content of Arsenic expressed in mg/l
7	Mercury (as Hg)	The total content of Mercury expressed in mg/l

### Contact details of Skin Cosmetic Lotion PT providing Institution

Provider	Contact Person / PT Coordinator
Rwanda Standards Board P.O. Box: 7099 Kigali-Kicukiro, RWANDA  Tel: +250 252-582945 Fax: +250 252-583305 Web: www.rsb.gov.rw	Ms Egidia Nkezabera Organisational unit: National Quality Testing laboratories Tel.:+250 788777431/+250 788443238 Fax: +250 252-583305 Email: <a href="mailto:alphonse.mbabazi@rsb.gov.rw">alphonse.mbabazi@rsb.gov.rw</a> <a href="mailto:egidia.nkezabera@rsb.gov.rw">egidia.nkezabera@rsb.gov.rw</a>

## Part 2: PT Matrices available

### 15. ROOFING SHEETS

S/N	Test property	Brief Notes on The Parameter of The Test
1	Tensile strength (N/mm <sup>2</sup> )	Tensile strength of the metal with width 30mm
2	Top Color +primer (mm)	Color and the first complete layer of paint of a coating system applied to an uncoated surface on top.
3	Bottom Color (mm)	Is the wash coat or back coat applied to the bottom (unexposed) side of the sheet and may be pigmented or clear.
4	Base metal thickness (mm)	The thickness of sheet without any Coating
5	Bottom Substrate (mm)	Is the amount of Zinc or Aluzinc on the bottom side
6	Top Substrate (mm)	Is the amount of Zinc or Aluzinc on Topside

#### Contact details of roofing sheets PT Providing Institution

Provider	Contact Person / PT Coordinator
Tanzania Bureau of Standards - TBS Ubungu, Morogoro Road / Sam Nujoma Rd. P.O. Box 9524, Dar es Salaam, Tanzania. Tel.: +255 22 245 0298   +255 22 245 0206 Fax: +255 22 245 0959 E-mail: <a href="mailto:info@tbs.go.tz">info@tbs.go.tz</a> Web: <a href="http://www.tbs.go.tz">www.tbs.go.tz</a>	Mr. Ramadhan S Shija  <b>Organisational unit:</b> Mechanical Engineering Laboratory Tel.: +255 718877729 Fax: +255 22 245 0959 Email: <a href="mailto:ramadhan.shija@tbs.go.tz">ramadhan.shija@tbs.go.tz</a>

### 16. STEEL BARS

	Test property	Brief Notes on The Parameter of The Test
1	Mass Per Unit Length (M/L), [Kg/M]	The ratio of Mass and Length
2	Nominal cross-sectional area), [Mm <sup>2</sup> ]	Ration of Mass Per Unit Length (M/L) and density
3	Upper Yield Stress (Reh), [N/Mm <sup>2</sup> ]	The ratio of Maximum Yield force and Nominal cross-sectional area),
4	Tensile Strength (Rm), [N/Mm <sup>2</sup> ]	The ratio of Maximum Load and Nominal cross-sectional area),
5	Elongation at Fracture (At) [%]	2w2qThe ratio of Change in Length and Original length

#### Contact details of Steel bars PT providing Institution

Provider	Contact Person / PT Coordinator
Tanzania Bureau of Standards - TBS Ubungu, Morogoro Road / Sam Nujoma Rd. P.O. Box 9524, Dar es Salaam, Tanzania. Tel.: +255 22 245 0298   +255 22 245 0206 Fax: +255 22 245 0959 E-mail: <a href="mailto:info@tbs.go.tz">info@tbs.go.tz</a> Web: <a href="http://www.tbs.go.tz">www.tbs.go.tz</a>	Mr. Ramadhan S Shija  <b>Organisational unit:</b> Mechanical Engineering Laboratory Tel.: +255 718877729 Fax: +255 22 245 0959 Email: <a href="mailto:ramadhan.shija@tbs.go.tz">ramadhan.shija@tbs.go.tz</a>

## Part 2: PT Matrices available

### 17. TEXTILES

S/N	Test property	Brief notes on the parameter of the test
1	Breaking strength and elongation at break	50mm raveled strip as per ISO 13934-1
2	Mass per unit area	Small swatches as per ISO 3801
3	Fibre composition and proportion	Proportion as per ISO 1833
4	Construction-Threads per unit length	Woven fabric, as per ISO 7211-2

#### Contact details of Textiles PT Providing Institution

Kenya Bureau of Standards P. O. Box 54974 – 00200 Popo Road off Mombasa Road Nairobi, KENYA Tel: +254 20 6948352/459/000 Fax: +254 20 604031/609660 Web:www.kebs.org	Mr. Enock Katam Organisational unit: Textiles Engineering Laboratory Tel.: +254 20 6948000/352/459, 734 600471 Fax: +254 20 604031/609660 Email: <a href="mailto:katame@kebs.org">katame@kebs.org</a>
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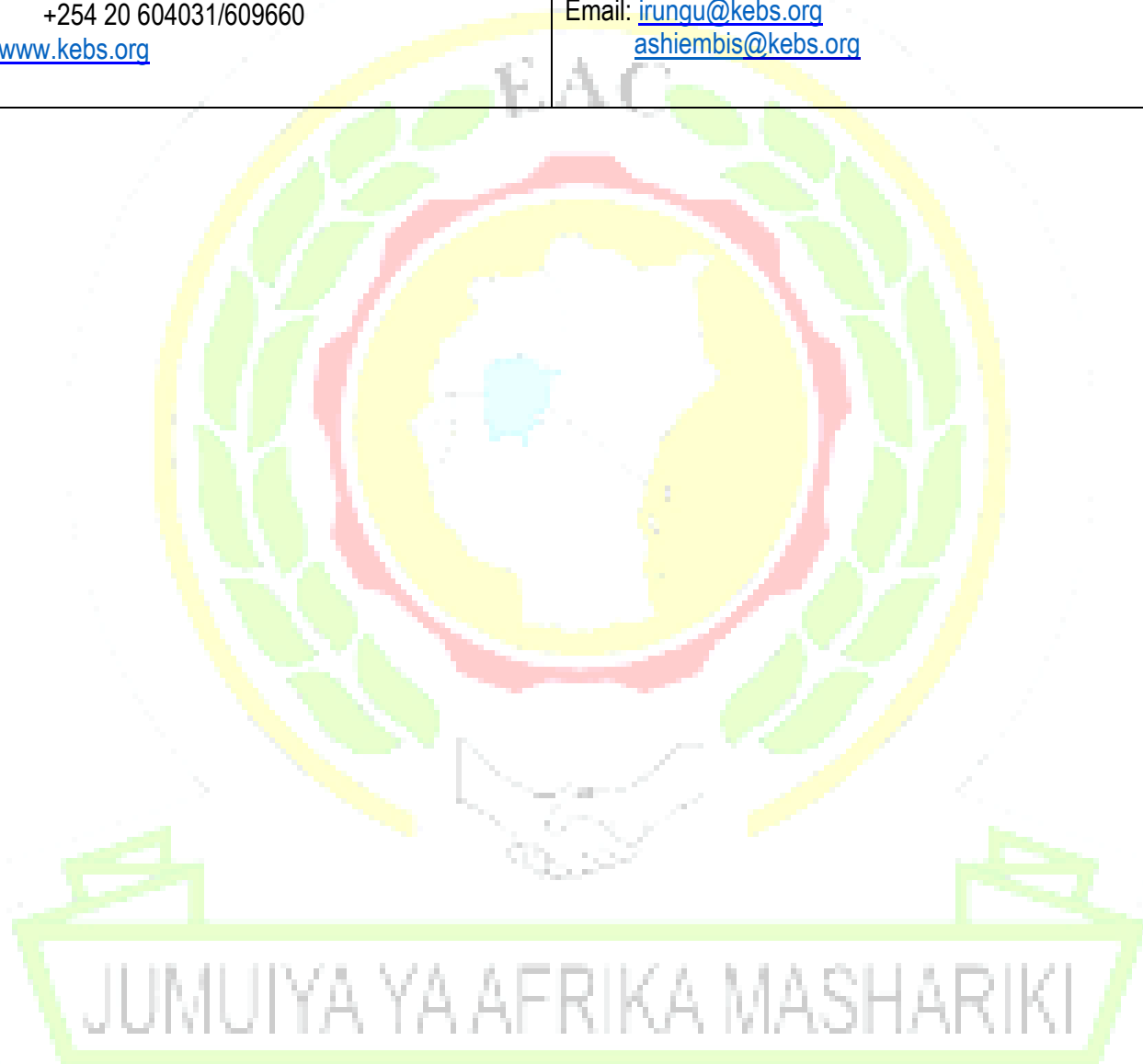
### 18. BLACK TEA

S/N	Test property	Brief Notes on The Parameter of The Test
1	Moisture content	The loss of weight resulting from oven drying of Black Tea sample at 105°C to constant weight
2	Water extracts	The total amount of water extracts in Black Tea
3	Total ash	The inorganic residue remaining upon incineration of Black Tea sample at 550°C - 600°C
4	Water-soluble ash	Amount of ash soluble in water
5	Acid insoluble ash	The measure of sandy matter in a black tea
6	The alkalinity of water-soluble ash	The alkalinity of water-soluble ash
7	Crude fibre	The loss in weight upon incineration at 550°C of the oven-dried residue remaining after sequential digestion of flour sample with H <sub>2</sub> SO <sub>4</sub> and NaOH
8	Polyphenols	Amount of polyphenols in black tea
9	Catechins	Amount of catechins in black tea
10	Anthocyanins	Amount of anthocyanins in black tea
11	Caffeine	Amount of caffeine in black tea
12	Iron, Copper, Zinc	Amount of trace elements in black tea
13	Arsenic, Cadmium and Lead	Amount of toxic element in black tea

## Part 2: PT Matrices available

### Contact details of Black Tea PT Providing Institution

Provider	Contact Person / PT Coordinator
Kenya Bureau of Standards P. O. Box 54974 – 00200 Popo Road off Mombasa Road Nairobi, KENYA Tel: +254 20 6948446/000 Fax: +254 20 604031/609660 Web: <a href="http://www.kebs.org">www.kebs.org</a>	Mr. Anthony Irungu/ Ashiambi Seruya  Organisational unit: Food and Agriculture Laboratory Tel.: +254 20 6948000/446 Fax: +254 20 604031/609660 Email: <a href="mailto:irungu@kebs.org">irungu@kebs.org</a> <a href="mailto:ashiambis@kebs.org">ashiambis@kebs.org</a>



## Part 2: PT Matrices available

### PART B: MICROBIOLOGY PT's

#### 1. DAIRY MICROBIOLOGY – SKIM MILK POWDER SCHEME

S/N	Test property	Brief Notes on The Parameter of The Test
1	Total Viable Count	Result expressed as Colony forming units per gram, (cfu/g)
2	Coliforms	Result expressed as Colony forming units per gram, (cfu/g)
3	Escherichia coli	Result expressed as Colony forming units per gram, (cfu/g)
4	Coagulase positive Staphylococci	Result expressed as Colony forming units per gram, (cfu/g)
5	Listeria species	Result expressed as Presence/Absence per 25g grams
6	Listeria monocytogenes	Result expressed as Presence/Absence per 25g grams
7	Salmonella species	Result expressed as Presence/Absence per 25g grams

#### Contact details of Dairy Microbiology Skim Milk Powder PT Providing Institution

Provider	Contact Person / PT Coordinator
Kenya Bureau of Standards P. O. Box 54974 – 00200 Popo Road off Mombasa Road Nairobi, KENYA Tel: +254 20 6948446/459/000 Fax: +254 20 604031/609660 Web: <a href="http://www.kebs.org">www.kebs.org</a>	Mr. Clarkson Agembo/ Daniel Omulogoli Organisational unit: Microbiology Laboratory Tel.: +254 20 6948000/460/344 Fax: +254 20 604031/609660 Email: <a href="mailto:agemboc@kebs.org">agemboc@kebs.org</a> <a href="mailto:kipkiruib@kebs.org">kipkiruib@kebs.org</a>

#### 2. MEAT AND FISH MICROBIOLOGY SCHEME

S/N	Test property	Brief Notes on The Parameter of The Test
1	Total Viable Count	Result expressed as Colony forming units per gram, (cfu/g)
2	Coliforms	Result expressed as Colony forming units per gram, (cfu/g)
3	Escherichia coli	Result expressed as Colony forming units per gram, (cfu/g)
4	Coagulase positive Staphylococci	Result expressed as Colony forming units per gram, (cfu/g)
5	Listeria species,	Result expressed as Presence/Absence per 25g grams
6	Listeria monocytogenes	Result expressed as Presence/Absence per 25g grams
7	Salmonella species	Result expressed as Presence/Absence per 25g grams
8	Vibrio species,	Result expressed as Presence/Absence per 25g grams
9	Vibrio parahaemolyticus	Result expressed as Presence/Absence per 25g grams

## Part 2: PT Matrices available

### Contact details of Meat and Fish Microbiology PT providing Institution

Provider	Contact Person / PT Coordinator
Kenya Bureau of Standards P. O. Box 54974 – 00200 Popo Road off Mombasa Road Nairobi, KENYA Tel: +254 20 6948446/459/000 Fax: +254 20 604031/609660 Web: <a href="http://www.kebs.org">www.kebs.org</a>	Mr. Clarkson Agembo/ Daniel Omulogoli Organisational unit: Microbiology Laboratory Tel.: +254 20 6948000/460/344 Fax: +254 20 604031/609660 Email: <a href="mailto:agemboc@kebs.org">agemboc@kebs.org</a> <a href="mailto:kipkiruib@kebs.org">kipkiruib@kebs.org</a>

### 3. BLACK TEA MICROBIOLOGY SCHEME

S/N	Test property	Brief Notes on The Parameter of The Test
1	Total Viable Count	Result expressed as Colony forming units per gram, (cfu/g)
2	Coliforms	Result expressed as Colony forming units per gram, (cfu/g)
3	Escherichia coli	Result expressed as Colony forming units per gram, (cfu/g)
4	Coagulase positive Staphylococci	Result expressed as Colony forming units per gram, (cfu/g)
5	Yeast	Result expressed as Colony forming units per gram, (cfu/g)
6	Molds	Result expressed as Colony forming units per gram, (cfu/g)
7	Yeasts and Molds	Result expressed as Colony forming units per gram, (cfu/g)
8	Salmonella	Result expressed as Presence/Absence per 25g grams

### Contact details of Black Tea Microbiology PT providing Institution

Provider	Contact Person / PT Coordinator
Kenya Bureau of Standards P. O. Box 54974 – 00200 Popo Road off Mombasa Road Nairobi, KENYA Tel: +254 20 6948446/459/000 Fax: +254 20 604031/609660 Web: <a href="http://www.kebs.org">www.kebs.org</a>	Mr. Clarkson Agembo/ Daniel Omulogoli Organisational unit: Microbiology Laboratory Tel.: +254 20 6948000/460/344 Fax: +254 20 604031/609660 Email: <a href="mailto:agemboc@kebs.org">agemboc@kebs.org</a> <a href="mailto:kipkiruib@kebs.org">kipkiruib@kebs.org</a>



## Part 2: PT Matrices available

### PART C: FREE TRIALS

#### 1. PAINTS

S/N	Test property	Brief Notes on The Parameter of The Test
1.	Non- volatile matter	Thermal decomposition and evaporation of low molecular mass constituents, as per ISO 3251
2.	pH	Determination of potential of hydrogen ion concentration, as per EAS 851, annex F.
3.	Viscosity	Viscosity is a measure of how resistant a paint is to spreading. This is an important characteristic because it determines how it performs when applied with different tools like brushes, rollers, and sprayers.
4.	Fineness of grind	to determine particle size in paint

#### Contact details of Paint PT Providing Institution

Provider	Contact Person / PT Coordinator
Kenya Bureau of Standards P. O. Box 54974 – 00200 Popo Road off Mombasa Road Nairobi, KENYA Tel: +254 20 6948442 Fax: +254 20 604031/609660 Web: <a href="http://www.kebs.org">www.kebs.org</a>	Ms. Tabitha Orwa  Organisational unit: Polymer Laboratory Tel.: +254 20 6948000/442/459, 738 109481 Fax: +254 20 604031/609660 Email: <a href="mailto:orwat@kebs.org">orwat@kebs.org</a>

#### 2. LEATHER

S/N	Test property	Brief Notes on The Parameter of The Test
1.	Tensile strength,	Percentage strain produced in a specimen stretched to its breaking point as per ISO 3376.
2.	Elongation,	Stress at the breaking point of a leather specimen as per ISO 3376 or
3.	Tear strength,	The purpose of performing the tear test on leather is to measure the peak force during a leather tear. This provides a measure of the material's resistance to tearing as per ISO 3377
4.	Thickness	Reported in mm to the nearest 0.01mm on finished products as per ISO 2589

## Part 2: PT Matrices available

### Contact details of Leather PT Providing Institution

Provider	Contact Person / PT Coordinator
Kenya Bureau of Standards P. O. Box 54974 – 00200 Popo Road off Mombasa Road Nairobi, KENYA Tel: +254 20 6948442 Fax: +254 20 604031/609660 Web: <a href="http://www.kebs.org">www.kebs.org</a>	Ms. Tabitha Orwa  Organisational unit: Polymer Laboratory Tel.: +254 20 6948000/442/459, 738 109481 Fax: +254 20 604031/609660 Email: <a href="mailto:orwat@kebs.org">orwat@kebs.org</a>

### 3. FOAM MATTRESS

S/N	Test property	Brief Notes on The Parameter of The Test
1.	Compression set	Amount of permanent deformation that occurs when a material is compressed to a specific deformation, for a specified time, at a specific temperature.
2.	Tear resistance	The purpose of performing the tear test on polyurethane foam is to measure the peak force during a foam tear. This provides a measure of the material's resistance to tearing.
3.	Tensile strength	Stress at the breaking point of a specimen
4.	Ultimate elongation (elongation at break)	Percentage strain produced in a specimen stretched to its breaking point

### Contact details of Mattress PT Providing Institution

Provider	Contact Person / PT Coordinator
Kenya Bureau of Standards P. O. Box 54974 – 00200 Popo Road off Mombasa Road Nairobi, KENYA Tel: +254 20 6948442 Fax: +254 20 604031/609660 Web: <a href="http://www.kebs.org">www.kebs.org</a>	Ms. Tabitha Orwa  Organisational unit: Polymer Laboratory Tel.: +254 20 6948000/442/459, 738 109481 Fax: +254 20 604031/609660 Email: <a href="mailto:orwat@kebs.org">orwat@kebs.org</a>

### 4. INSTANT COFFEE

S/N	Test property	Brief Notes on The Parameter of The Test
1	Moisture content	The loss of weight resulting from oven drying of instant coffee sample at 105°C to constant weight
2	Total ash	The inorganic residue remaining upon incineration of instant coffee sample at 550°C - 600°C
3	Caffeine content	Amount of Caffeine in instant coffee

## Part 2: PT Matrices available

4	Lead, Arsenic, Cadmium	Amount of toxin element in instant coffee
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### 5. GREEN COFFEE

S/N	Test property	Brief Notes on The Parameter of The Test
1	Moisture content	The loss of weight resulting from oven drying of green coffee sample at 105°C to constant weight
2	Acid insoluble ash	Measure of Sandy matter in green coffee
3	Ochratoxin A	Amount of Ochratoxin A in green coffee
4	Lead, Arsenic, Cadmium	Amount of toxin element in green coffee

### Contact details of Green & Instant coffee PT Providing Institution

Organisation	Contact Person
UNBS, Uganda National Bureau of Standards P.O. Box 6329 Plot M217 Nakawa Industrial Area Kampala, UGANDA Tel.: +256 414333250/333251/333252 Web: <a href="http://www.unbs.go.ug">http://www.unbs.go.ug</a>	Ms. Eva Namutebi / Mr. Amos Tumuheire Organisational unit: Chemistry Laboratory Tel.: +256 414333250/ 333251/333252 Email: <a href="mailto:eva.namutebi@unbs.go.ug">eva.namutebi@unbs.go.ug</a> <a href="mailto:amos.tumuheire@unbs.go.ug">amos.tumuheire@unbs.go.ug</a>

### 6. ENERGY DRINK

S/N	Test property	Brief Notes on The Parameter of The Test
1	pH	It is approximately the negative of the base 10 logarithms of the molar concentration, measured in units of moles per litre, of hydrogen ions
2	Brix	Degrees Brix (symbol °Bx) is the sugar content of an aqueous solution
3	Caffeine	The total amount of caffeine content present in energy drinks, expressed in mg/l

## Part 2: PT Matrices available

### Contact details of Energy Drink PT providing Institution

Provider	Contact Person/PT Coordinator
TBS, Tanzania Bureau of Standards P.O. Box 9524 Morogoro/Sam Nujoma Roads, Ubungo Dar es Salaam, Tanzania Tel.: +255(22)2450298/2450206/2450949 Fax: +255 22 245 0959 Web: <a href="http://www.tbs.go.tz">www.tbs.go.tz</a>	Emanuel Bakashaya/ Habakuki kalebo Organisational unit: Food Chemistry Laboratory Tel.: +255(22)2450298/2450206/2450949 Fax: +255 22 245 0959 Email: <a href="mailto:emanuel.bakashaya@tbs.go.tz">emanuel.bakashaya@tbs.go.tz</a> <a href="mailto:habakuki.kalebo@tbs.go.tz">habakuki.kalebo@tbs.go.tz</a>

