



**DRAFT TANZANIA STANDARD**

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**Common salt and cattle licks – Specification**

DRAFT STANDARD FOR DISCUSSION

## Common salt and cattle licks – Specification

### 0 FOREWORD

This Tanzania standard is prepared to assist control quality and safety of common salt and cattle licks produced or traded in the country for animal consumption.

In preparation of this Tanzania standard considerable assistance was derived from IS 920:1972, Specification for common salt and cattle licks for animal consumption published by the Bureau of Indian Standards.

In reporting the results of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with TZS 4 (see clause 2).

### 1.0 SCOPE

This Tanzania standard specifies requirements, methods of sampling and test for common salt and cattle licks for animal consumption.

### 2.0 NORMATIVE REFERENCES

For the purpose of this Tanzania standard, the following references shall apply. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

TZS 4 – Rounding off numerical values

TZS 76 – General method for determination of Arsenic silver diethyldithiocarbamate photometric method

TZS 109 – Food Processing units – code of hygiene – General.

TZS 268 – General atomic absorption spectrophotometric method for determination of lead in food stuffs

TZS 538 – Labelling of pre-packaged foods — General requirements

TZS 821 – Animal feeds and feeding stuffs – Preparation of test samples.

TZS 2477-1 – Animal feeding stuffs - Determination of water-soluble chlorides content

TZS 2478 – Animal feeding stuffs – Determination of moisture and other volatile matter content

ISO 2479 – Sodium chloride for industrial use — Determination of matter insoluble in water or in acid and preparation of principal solutions for other determinations

TZS 2487 – Animal feeding stuffs - Determination of the contents of calcium, copper, iron, magnesium, manganese, potassium, sodium and zinc - Method using atomic absorption spectrometry

TZS 2488 – Animal feeding stuffs – Sampling

### 3.0 TERMS AND DEFINITIONS

For the purpose of this standard, the following terms and definitions shall apply:

### 4.0 REQUIREMENTS

#### 4.1 General requirements

**4.1.1** Common salt for animal consumption shall be in the form of a crystalline solid; white or pale-pink or light grey in colour, free from visible contamination of clay, grit or extraneous adulterants and impurities. Common salt for animal consumption shall not contain any harmful constituents except other salts, such as calcium carbonate, sodium carbonate, potassium chloride, magnesium sulphate and magnesium chloride which are soluble in water.

**4.1.2** Cattle licks shall preferably be in the form of blocks or bricks, and shall be free from visible contamination with clay, grit and extraneous adulterants or impurities. The licks shall be sufficiently hard and strong so as not to crumble during handling.

**4.1.3** The block may have a hole at one end so as to facilitate their 'pegging' to keep them above ground level or be provided with embedded rope for the purpose of hanging.

**4.1.4** Sizes – unless otherwise agreed to between the purchaser and the supplier, cattle licks shall be manufactured in the following sizes:

- a) 2 kg block
- b) 5 kg block
- c) 10 kg brick, and
- d) 100 g pet licks.

**4.1.5** Types – Cattle licks may be either plain or mineralized. For proper differentiation the mineralized licks shall be suitably colored.

#### 4.2 Specific requirements

Common salt and cattle licks shall also conform to the requirements detailed in Table 1a and 1b.

**Table 1a: Requirements for common salt for animal consumption**

S/No	Parameter	Requirements	Method of test
1)	Moisture, %, m/m, Max	6	ANNEX A
2)	Chloride content (as NaCl), % m/m, min	94	TZS 2477-1
3)	Water insoluble matter, % m/m, max	1	ISO 2479

**NOTE:** These requirements are on moisture – free basis

**Table 1b: Requirements for cattle licks, plain and mineralized**

S/No.	Parameter	Requirements (mg/kg, max)		Method of test
		Plain licks	Mineralized licks	
1)	Moisture, %, m/m, Max	6	6	ANNEX A

2)	Chloride content (as NaCl), %, m/m, , Min	94	94	TZS 2477-1
3)	Iron, percent by mass, Min	-	0.13	TZS 2487
4)	Iodine, percent by mass, Min	-	0.003	TZS 76
5)	Copper, percent by mass, Max	-	0.035	TZS 2487
6)	Manganese, percent by mass, Max	-	0.20	TZS 2487
7)	Cobalt, percent by mass, Min	-	0.001	TZS 2487
NOTE: These requirements are on moisture – free basis				

## 5.0 CONTAMINANTS

The products covered by this standard shall comply with the maximum limits for heavy metals specified in Table 2.

**Table 2: Heavy metal contaminants**

S/No.	Heavy metal	Maximum limits (mg/kg, max)	Method of test
1)	Mercury (Hg)	0.1	ICP/AAS
2)	Lead (Pb)	15	TZS 268
3)	Arsenic (As)	10	TZS 76
4)	Cadmium (Cd)	10	ICP/AAS

## 6.0 HYGIENE

The product shall be prepared under strict hygienic conditions according to TZS 109 (see clause 2).

## 7.0 SAMPLING AND TESTS

### 7.1 Sampling

Sampling of the product covered under this standard shall be done according to TZS 2488 and test samples shall be prepared in accordance with TZS 821 (see clause 2).

### 7.2 Tests

Testing of this product shall be done according to test methods prescribed in Tables 1 and 2 (see clause 2).

## 8.0 PACKING, MARKING AND LABELLING

### 8.1 Packing

**8.1.1** The material shall be packed in moisture-proof containers which are of sufficient strength and sufficiently sealed so as to withstand handling without tearing, bursting or falling open during normal handling and transportation.

**8.1.2** The container shall be sound, clean and free from causal agents of infectious diseases and parasites.

### 8.2 Marking and labelling

Common salt and cattle licks for each container shall be marked to display the following information:

- a) Name of the product;
- b) Name and physical address of the manufacturer/packer;
- c) Country of origin;
- d) Batch or code number;
- e) Date of manufacture;
- f) Net content in metric units;
- g) Expiry date;
- h) Directions for use and storage conditions;

**8.3** The container may also be marked with TBS Certification Mark.

**NOTE** – The TBS Standards Mark of Quality may be used by the manufacturers only under licence from TBS. Particulars of conditions under which the licences are granted may be obtained from TBS.

**ANNEX A  
(Normative)****DETERMINATION OF MOISTURE CONTENT - SALT****A.2.1 Procedure**

A.2.1.1 Grind rapidly the salt sample as received (say 100g) where relevant, as in the case of iodated

coarse salt, in an agate mortar to approximate size of 2.8 mm sieve, but do not actually sieve. The salt

which shall be in the form of powder shall be kept in an air-tight container.

A.2.1.2 Weigh accurately about 20 g of the salt in a weighing bottle (about 30 ml capacity); preferably wide mouth squat type: previously dried and weighed. Dry in an oven at 140 °C to 150 °C for at least four hours, cool in a desiccator and weigh

**A.2.2 Calculation**

Moisture, per cent by mass =  $100 (M_i - M_s)$

where

M<sub>i</sub> = the initial mass in grams of the salt taken for the testing

M<sub>s</sub> = the final mass in grams of the salt taken for the test