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CORRIGENDUM

LEGAL NOTICE NO. 27 OF 1977

THE WEIGHTS AND MEASURES ORDER, 1975
(No. 27 of 1975)

[Published at page S1 of Part 'C' of the Supplement to the Government Gazette of Friday the 22nd 1977 (Vol. XV)]

The Schedule referred to in the preamble to the above-mentioned Order was erroneously omitted from Legal Notice No. 27 of 1977 and is now annexed hereto to form part of that Legal Notice.

Mbabane
18th May, 1977.

SCHEDULE
(Preamble)**THE INTERNATIONAL SYSTEM OF UNITS (SI)****1. The SI units consist of —**

- (a) the base units;
- (b) the supplementary units; and
- (c) the derived units,

which together form the coherent system of SI units. In addition the SI contains the decimal multiples and submultiples of SI units formed by using the SI prefixes.

- 2. The SI base units, their symbols, and the quantities whose magnitudes are expressed in terms of these base units, are set out and defined in Part I of this Schedule.
- 3. The SI supplementary units, their symbols, and the quantities whose magnitudes are expressed in terms of these supplementary units, are set out and defined in Part II of this Schedule.
- 4. The SI derived units which have special names are set out in Part III of this Schedule together with their symbols and the quantities whose magnitudes are expressed in terms of these units.
- 5. SI derived units which are derived direct from base units or from base units and supplementary units are set out in Part IV of this Schedule together with their symbols and the quantities whose magnitudes are expressed in terms of these units.
- 6. SI derived units expressed in SI derived units with special names and other SI units are set out in Part V of this Schedule together with their symbols and the quantities whose magnitudes are expressed in terms of these units.
- 7. The SI prefixes and their symbols are set out in Parts VI and VII of this Schedule.
- 8. The SI units and SI prefixes are subject to any applicable rule in this Schedule.

PART I

SI BASE UNITS

<i>Physical Quantity</i>	<i>Name of Unit</i>	<i>Permissible Symbol</i>
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Amount of substance	mole	mol
Luminous intensity	candela	cd

Definitions of the base units

1. The base unit of length:

The metre is the length equal to $1\,650\,763,73$ wavelengths in vacuum of the radiation corresponding to the transition between the levels $2p_{10}$ and $5d_5$ of the krypton 86 atom.

(11th C.G.P.M. (1960), Resolution 6).

2. The base unit of mass:

The kilogram is the mass of the international prototype of the kilogram which is recognised by the Conférence Générale des Poids et Mesures (C.G.P.M.) and which is in the custody of the Bureau International des Poids et Mesures, Sèvres, France.

(1st and 3rd C.G.P.M. 1889 and 1901).

3. The base unit of time:

The second is the duration of $9\,192\,631\,770$ periods of the radiation corresponding to the transition between the two hyperfine levels of the ground state of the caesium 133 atom.

(13th C.G.P.M. (1967), Resolution 1).

4. The base unit of electric current:

The ampere is that constant current which, if maintained in two straight parallel conductors of infinite length, of negligible circular cross-section, and placed 1 metre apart in vacuum, would produce between these conductors a force equal to 2×10^{-7} newton per metre of length.

(9th C.G.P.M. 1948).

5. The base unit of thermodynamic temperature:

The kelvin is the fraction $1/273,16$ of the thermodynamic temperature of the triple of water.

(13th C.G.P.M. (1967), Resolution 4).

6. The base unit of substance:

The mole is the amount of substance of a system which contains as many elementary entities as there are atoms in 0,012 kilogram of carbon 12.

(14th C.G.P.M. 1971).

7. The base unit of luminous intensity:

The candela is the luminous intensity, in the perpendicular direction, of a surface of 1/600 000 square metre of a black body at the temperature of freezing platinum under pressure of 101 325 pascals.

(13th C.G.P.M. (1967), Resolution 5).

Note: (1) In addition to the thermodynamic temperature (symbol: T) expressed in kelvins (symbol: K), use is also made of Celsius temperature (symbol: t) defined by the equation

$$t = T - T_0$$

where $T_0 = 273,15$ K by definition. Celsius temperature is expressed in degrees Celsius (symbol: C). The unit "degree Celsius" is equal to the unit "kelvin" and an interval or a difference of Celsius temperature may also be expressed in degrees Celsius.

- (2) When the mole is used, the elementary entities must be specified and may be atoms, molecules, ions, electrons, other particles, or specified groups of such particles.
- (3) (a) The meanings of the terms used in these definitions will be those that are assigned to them in Physics.
 (b) C.G.P.M. stands for the General Conference of Weights and Measures.

PART II

SI SUPPLEMENTARY UNITS

<i>Physical Quantity</i>	<i>Name of Unit</i>	<i>Permissible Symbol</i>
Plane angle	radian	rad
Solid angle	steradian	sr

Definitions of the supplementary units

1. The supplementary unit of plane angle:

The radian is the plane angle between two radii of a circle which cut off on the circumference an arc equal in length to the radius.

2. The supplementary unit of solid angle:

The steradian is the solid angle which, having its vertex in the centre of a sphere, cuts off an area of the surface of the sphere equal to that of a square with sides of length equal to the radius of the sphere.

PART III

SI DERIVED UNITS WITH SPECIAL NAMES

<i>Physical Quantity</i>	<i>Name of Unit</i>	<i>Permissible Symbol</i>
Capacitance	farad	F
Conductance, admittance, susceptance	siemens	S
Electric charge, quantity of electricity, electric flux	coulomb	C
Electrical resistance, impedance, reactance	ohm	Ω
Electric potential, tension, electromotive force	volt	V
Force, weight	newton	N
Frequency	hertz	Hz
Illuminance	lux	lx
Inductance	henry	H
Luminous flux	lumen	lm
Magnetic flux	weber	Wb
Magnetic induction, flux density, polarization	tesla	T
Power, radiant flux	watt	W
Pressure, stress, modulus of elasticity	pascal	Pa
Work, energy, quantity of heat	joule	J

PART IV

SI DERIVED UNITS WITHOUT SPECIAL NAMES

<i>Physical Quantity</i>	<i>Name of Unit</i>	<i>Permissible Symbol</i>
Acceleration	metre per second squared	m/s ²
Activity (disintegration rate)	1 per second	s ⁻¹
Angular acceleration	radian per second squared	rad/s ²
Angular velocity	radian per second	rad/s
Area	square metre	m ²
Coefficient of linear expansion	1 per kelvin	K ⁻¹
Concentration (of amount of substance)	mole per cubic metre	mol/m ³
Density	kilogram per cubic metre	kg/m ³
Diffusion coefficient	metre squared per second	m ² /s
Electric current density	ampere per square metre	A/m ²
Exposure rate (ionizing radiation)	ampere per kilogram	A/kg
Kinematic viscosity	square metre per second	m ² /s
Luminance	candela per square metre	cd/m ²
Magnetic field strength	ampere per metre	A/m
Magnetic moment	ampere metre squared	A.m ²
Mass flow rate	kilogram per second	kg/s
Mass per unit area, surface density	kilogram per square metre	kg/m ²

Mass per unit length, linear density	kilogram per metre	kg/m
Molality	mole per kilogram	mol/kg
Molar mass	kilogram per mole	kg/mol
Molar volume	cubic metre per mole	m ³ /mol
Moment of inertia	kilogram metre squared	kg.m ²
Moment of momentum	kilogram metre squared per second	kg.m ² /s
Momentum	kilogram metre per second	kg.m/s
Rotational frequency	1 per second	s ⁻¹
Second moment of area	metre to the fourth power	m ⁴
Second modulus	metre cubed	m ³
Specific volume	cubic metre per kilogram	m ³ /kg
Speed, velocity	metre per second	m/s
Volume	cubic metre	m ³
Volume flow rate	cubic metre per second	m ³ /s
Wave number	1 per metre	m ⁻¹

PART V

SI DERIVED UNITS EXPRESSED IN TERMS OF SI DERIVED UNITS WITH SPECIAL NAMES, SI BASE UNITS AND SI SUPPLEMENTARY UNITS

<i>Physical Quantity</i>	<i>Name of Unit</i>	<i>Permissible Symbol</i>
Absorbed dose rate	watt per kilogram	W/kg
Conductivity	siemens per metre	S/m
Dynamic viscosity	pascal second	pa.s
Electric charge density	coulomb per cubic metre	C/m ³
Electric field strength	volt per metre	V/m
Electric flux density, electric surface charge density	coulomb per square metre	C/m ²
Energy density	joule per cubic metre	J/m ³
Heat capacity, entropy	joule per kelvin	J/K
Heat flux density, irradiance	watt per square metre	W/m ²
Linear energy transfer	joule per metre	J/m
Molar energy	joule per mole	J/mol
Molar entropy, molar heat capacity	joule per mole kelvin	J/mol.K
Moment of force, torque	newton metre	N.m
Permeability	henry per metre	H/m
Permittivity	farad per metre	F/m
Radiant intensity	watt per steradian	W/sr
Resistivity	ohm metre	Ω .m
Specific charge, exposure	coulomb per kilogram	C/kg
Specific energy, absorbed dose	joule per kilogram	J/kg
Specific gamma ray constant	coulomb metre squared per kilogram	C.m ² /kg
Specific heat capacity, specific entropy	joule per kilogram kelvin	J/kg.K
Specific latent heat	joule per kilogram	J/kg
Surface tension	newton per metre	N/m
Thermal conductivity	watt per metre kelvin	W/m.K

PART VI

SI PREFIXES AND SYMBOLS FOR FORMING MULTIPLES OR
 SUBMULTIPLES OF SI UNITS AND REPRESENTING FACTORS
 WHICH ARE POSITIVE OR NEGATIVE POWERS OF 1 000

<i>Factor</i>	<i>Factor in words</i>	<i>SI prefix</i>	<i>Symbol</i>
10^{12}	billion	tera-	T
10^9	milliard	giga-	G
10^6	million	mega-	M
10^3	thousand	kilo-	k
10^{-3}	thousandth	milli-	m
10^{-6}	millionth	micro-	μ
10^{-9}	milliardth	nano-	n
10^{-12}	billionth	pico-	p
10^{-15}	billiardth	femto	f
10^{-18}	trillionth	atto-	a

PART VII

OTHER SI PREFIXES AND SYMBOLS

<i>Factor</i>	<i>Factor in words</i>	<i>SI prefix</i>	<i>Symbol</i>
10^2	hundred	hecto-	h
10^1	ten	deca-	da
10^{-1}	tenth	deci-	d
10^{-2}	hundredth	centi-	c

PART VIII

RULES FOR THE USE OF SI UNITS

1. In the symbols of derived units —

- (a) multiplication is denoted by a point e.g. Newton metre = N.m; and
- (b) division is denoted by an oblique stroke or horizontal line or a negative power, e.g. metre per second = $\frac{\text{m}}{\text{s}}$ or m.s^{-1} .

Note: The letter “p” is not used to denote division.

2. A comma and not a point is used as the decimal sign.
3. Digits are separated into groups of three digits on either side of the decimal sign by means of spaces. The decimal sign has always at least one digit on each side of it, e.g. 25 130,12 mm = 24,130 12 m = 0,025 130 12 km.
4. A space is left between the numerical part of an expression of quantity and the unit symbol, e.g. 5 km and not 5km.
5. The SI prefixes or their symbols form a combination with the name or symbol of the unit and are written in front of the name or symbol of the unit concerned without a space, point or hyphen separating them, e.g. kilogram or kg but not kilo gram, kilo, gram, kilo-gram or k g, k.g or k-g.
6. In the case of the unit of mass, and subject to the provisions of Rule 7 below, the prefixes or their symbols given in Parts VI and VII are applied to the gram and not to the kilogram.
7. The prefixes or their symbols given in Part VII are not used to denote multiples and submultiples of units unless otherwise stated.
8. For the multiples and submultiples of the measuring unit of volume, namely the cubic metre, or of the measuring unit of area, namely the square metre, all the prefixes in Parts VI and VII may be used.

LEGAL NOTICE NO. 45 OF 1977

THE ANIMAL DISEASE ACT, 1965

(No. 7 of 1965)

THE STOCK DISEASES (RABIES) (NO. 7) REGULATIONS 1977

(Under Section 3)

(Commencement: 3rd June, 1977)

In exercise of the powers conferred on him by the above-mentioned Act, the Honourable the Minister of Agriculture is pleased to make the following regulations:—

Citation.

1. These regulations may be cited as the Stock Diseases (Rabies) (No. 7) Regulations 1977.

Declaration of Rabies Guard Areas.

2. The Dipping Tanks, and other areas specified in the Schedule hereto are hereby declared to be Rabies Guard Areas.

Isolation and Confinement of dogs in the Rabies Guard Areas.

3. Every owner of a dog in any of the Guard Areas shall isolate and confine it so as to prevent it from escaping from such guard areas.

Destruction of dogs in Rabies Guard Areas.

4. A Government Veterinary Officer may destroy a dog in any of the Rabies Guard Areas which, in his opinion, has been confined so as to prevent it from escaping from such guard areas.

Offence and Penalty.

5. Every owner of a dog in any of the guard areas who contravenes or fails to comply with regulation 3 shall be guilty of an offence and liable to a fine of E300 or imprisonment for a period of six months.

A. R. V. KHOZA
Permanent Secretary.

Mbabane.
27th May, 1977.

SCHEDULE

Hhohho District

Ndlalambi

Herefords

Nsonyama

Sokozaphi

Magidza

Nkomanzi