Units of measurement

The names and symbols for units of measurement used by the *International Pharmacopoeia* are those of the *Système international d'Unit(c)s* (International System of Units) (SI), a practical system of units that has been developed through the efforts of the General Conference of Weights and Measures (CGPM) and other international organizations. The 11th General Conference (1960) adopted the international abbreviation SI for this system of units[1].

[1] The definitions of the units used in the International System are given in the brochure "Le Système international d`unit(c)s" published by the Bureau International des Poids et Mesures, (BIPM) Pavillion de Breteuil, F-92310 Sèvres. The most recent edition was published in 1998 and a Supplement in 2000. For more information, consult the BIPM website (http://www.bipm.fr).

The SI units used in the third edition of the *International Pharmacopoeia,* as well as their multiples and submultiples, were in many cases identical to the units used for the respective units of measurement in the second edition. In other cases, however, the SI had introduced differently defined units; this was especially true for derived units. In such situations, to promote better understanding of the procedures and limits related to quality requirements, the third edition of the *International Pharmacopoeia* gave, in addition to the SI units, the units previously used in the second edition, together with appropriate conversion of numerical values. Where included, this information has been retained in the fourth edition.

The following multiplicative prefixes, which indicate decimal multiples and submultiples of the SI units, are used in the *International Pharmacopoeia:*

giga (G)	10^{9}
mega(M)	10^{6}
kilo (k)	10^{3}
centi (c)	10^{-2}
milli (m)	10^{-3}
micro (µ)	10^{-6}
nano (n)	10^{-9}
pico (p)	10^{-12}

The use of these prefixes is illustrated by the following units, multiples and submultiples, that are employed in the third edition of the *International Pharmacopoeia:*

Units of length

metre	(m)
centimetre	(cm)
millimetre	(mm)
micrometre	(µm)
nanometre	(nm)

Units of volume (capacity)

litre	(L)	= 1 000 cm^3
millilitre	(mL)	= 1 cm^3
microlitre	(µL)	= 0.001 cm^3

Units of temperature

Kelvin	(K)
degree Celsius	(°C)

Units of mass

kilogram	(kg)
gram	(g)
milligram	(mg)
microgram	(µg)
nanogram	(ng)

Units of time

year	(a)
day	(d)
hour	(h)
minute	(min)
second	(s)
millisecond	(ms)
microsecond	(µs)

Units of pressure

kilopascal	(kPa)
pascal	(Pa)

The following non-SI units of pressure are also used in some special cases:

pound-force per square inch (lbf/in^2 or, incorrectly, psi)	≈ 0.69 kPa
millimetre of mercury (mmHg)	≈ 133 Pa

Units of radioactivity [1]

[1] The definition of units of radioactivity is given under "Radiopharmaceuticals".

gigabecquerel (GBq)	= 27.03 mCi
megabecquerel (MBq)	= 27.03 µCi
becquerel (Bq)	= 27.03 pCi
curie (Ci)	= 37 GBq
millicurie (mCi)	= 37 MBq
microcurie (µCi)	= 37 kBq

Units of electric current

ampere	(A)
milliampere	(mA)
nanoampere	(nA)

Units of electric potential

volt	(V)
millivolt	(mV)

Unit of resistance

ohm(Ω)