

ANNEX 8A.1

PREFIXES, UNITS AND ABBREVIATIONS, STANDARD EQUIVALENTS

Annex 8A.1 Prefixes, units and abbreviations, standard equivalents

Prefixes and multiplication factors

Multiplication Factor	Abbreviation	Prefix	Symbol
1 000 000 000 000 000	10^{15}	peta	P
1 000 000 000 000	10^{12}	tera	T
1 000 000 000	10^9	giga	G
1 000 000	10^6	mega	M
1 000	10^3	kilo	k
100	10^2	hecto	h
10	10^1	deca	da
0.1	10^{-1}	deci	d
0.01	10^{-2}	centi	c
0.001	10^{-3}	milli	m
0.000 001	10^{-6}	micro	μ

Units and abbreviations

cubic metre	m^3
hectare	ha
gram	g
tonne	t
Joule	J
degree Celsius	$^{\circ}\text{C}$
calorie	cal
year	yr
capita	cap
gallon	gal
dry matter	d.m.
kilogram	kg
pound	lb
atmosphere	atm
Pascal	Pa
hour	h
Watt	W

Units and abbreviations, and standard equivalents

1 tonne of oil equivalent (toe)	1 toe	1 x 10 ¹⁰ calories	1 x 10 ¹⁰ cal
1 ktoe		41.868 terajoules	41.868 TJ
1 short ton	1 sh t	0.9072 tonne	0.9072 t
1 tonne	1 t	1.1023 short tons	1.1023 sh t
1 tonne	1 t	1 megagram	1 Mg
1 kilotonne	1 kt	1 gigagram	1 Gg
1 megatonne	1 Mt	1 teragram	1 Tg
1 gigatonne	1 Gt	1 petagram	1 Pg
1 kilogram	1 kg	2.2046 pounds	2.2046 lb
1 hectare	1 ha	10 ⁴ squire meters	10 ⁴ m ²
1 calorie _{IT}	1 cal _{IT}	4.1868 Joules	4.1868 J
1 atmosphere	1 atm	101.325 kilopascal	101.325 kPa
1 gram	1 g	0.002205 pounds	0.00205 lb
1 pound	1 lb	453.6 gram	453.6 g
1 terajoule	1 TJ	2.78 x 10 ⁵ kiloWatt hour	2.78 x 10 ⁵ kWh
1 kilowatt hour	1 kWh	3.6 x 10 ⁶ Joules	3.6 x 10 ⁶ J

Formulae for chemical compounds

Chemical formula	Gas
CO ₂	Carbon dioxide
CH ₄	Methane
N ₂ O	Nitrous oxide
HFCs	Hydrofluorocarbons
PFCs	Perfluorocarbons
SF ₆	Sulphur hexafluoride
NF ₃	Nitrogen trifluoride
SF ₅ CF ₃	Trifluoromethyl sulphur pentafluoride
CFCs	Chlorofluorocarbons
CHF ₃	HFC-23
CH ₂ F ₂	HFC-32
CH ₃ F	HFC-41
CHF ₂ CF ₃	HFC-125
CHF ₂ CHF ₂	HFC-134
CH ₂ FCF ₃	HFC-134a
CHF ₂ CH ₂ F	HFC-143
CF ₃ CH ₃	HFC-143a
CH ₂ FCH ₂ F	HFC-152
CH ₃ CHF ₂	HFC-152a
CH ₃ CH ₂ F	HFC-161
CF ₃ CHFCF ₃	HFC-227ea
CH ₂ FCF ₂ CF ₃	HFC-236cb
CHF ₂ CHFCF ₃	HFC-236ea

Formulae for chemical compounds (Continued)

Chemical formula	Gas
$\text{CF}_3\text{CH}_2\text{CF}_3$	HFC-236fa
$\text{CH}_2\text{FCF}_2\text{CHF}_2$	HFC-245ca
$\text{CHF}_2\text{CH}_2\text{CF}_3$	HFC-245fa
$\text{CF}_3\text{CH}_2\text{CF}_2\text{CH}_3$	HFC-365mfc
$\text{CF}_3\text{CHFCHF}_2\text{CF}_3$	HFC-43-10mee
CF_3OCHF_2	HFE-125
$\text{CHF}_2\text{OCHF}_2$	HFE-134
CH_3OCF_3	HFE-143a
$\text{CF}_3\text{CHClOCHF}_2$	HCFE-235da2
$\text{CF}_3\text{CF}_2\text{OCH}_3$	HFE-245cb2
$\text{CF}_3\text{CH}_2\text{OCHF}_2$	HFE-245fa2
$\text{CHF}_2\text{CF}_2\text{OCH}_3$	HFE-254cb2
$\text{CF}_3\text{CF}_2\text{CF}_2\text{OCH}_3$	HFE-347mcc3
$\text{CHF}_2\text{CF}_2\text{CH}_2\text{OCHF}_2$	HFE-356pcf3
$\text{CHF}_2\text{CF}_2\text{OCH}_2\text{CH}_3$	HFE-374pc2
$\text{C}_4\text{F}_9\text{OCH}_3$	HFE-7100
$\text{C}_4\text{F}_9\text{OC}_2\text{H}_5$	HFE-7200
$\text{CHF}_2\text{OCF}_2\text{OC}_2\text{F}_4\text{OCHF}_2$	H-Galden 1040x
$\text{CHF}_2\text{OCF}_2\text{OCHF}_2$	HG-10
$\text{CHF}_2\text{OCF}_2\text{CF}_2\text{OCHF}_2$	HG-01
CF_4	Perfluoromethane
C_2F_6	Perfluoroethane
C_3F_8	Perfluoropropane
C_4F_{10}	Perfluorobutane
c- C_4F_8	Perfluorocyclobutane
C_5F_{12}	Perfluoropentane
C_6F_{14}	Perfluorohexane
c- C_3F_6	Perfluorocyclopropane
$\text{CF}_3\text{CHFOCF}_3$	HFE-227ea
$\text{CF}_3\text{CHFOCHF}_2$	HFE-236ea2
$\text{CF}_3\text{CH}_2\text{OCF}_3$	HFE-236fa
$\text{CHF}_2\text{CH}_2\text{OCF}_3$	HFE-245fa1
$\text{CF}_3\text{CH}_2\text{OCH}_3$	HFE-263fb2
$\text{CF}_3\text{CF}_2\text{OCF}_2\text{CHF}_2$	HFE-329mcc2
$\text{CF}_3\text{CF}_2\text{OCH}_2\text{CF}_3$	HFE-338mcf2
$\text{CF}_3\text{CF}_2\text{OCH}_2\text{CHF}_2$	HFE-347mcf2
$\text{CF}_3\text{CHF}_2\text{CF}_2\text{OCH}_3$	HFE-356mec3
$\text{CHF}_2\text{CF}_2\text{CF}_2\text{OCH}_3$	HFE-356pcc3
$\text{CHF}_2\text{CF}_2\text{OCH}_2\text{CHF}_2$	HFE-356pcf2
$\text{CF}_3\text{CF}_2\text{CH}_2\text{OCH}_3$	HFE-365mcf3
CO	Carbon monoxide
NO_x	Nitrogen oxides
NMVOC	Non-methane volatile organic compound
SO_2	Sulphur dioxide
NH_3	Ammonia