

Arsenic trichloride

Other names:	Arsenic butter Arsenic chloride Arsenic chloride (AsCl ₃) Arsenic(3+) chloride Arsenic(III) chloride Arsenious chloride Arsenous chloride Arsenous trichloride AsCl ₃ Butter of arsenic Chlorure arsenieux Chlorure d'arsenic Fuming liquid arsenic Trichloroarsine Trichlorure d'arsenic UN 1560
Inchi:	InChI=1S/AsCl3/c2-1(3)4
InchiKey:	OEYOHULQRFXULB-UHFFFAOYSA-N
Formula:	AsCl ₃
SMILES:	Cl[As](Cl)Cl
Mol. weight [g/mol]:	181.28
CAS:	7784-34-1

Physical Properties

Property code	Value	Unit	Source
ie	11.20 ± 0.10	eV	NIST Webbook
ie	11.60 ± 0.05	eV	NIST Webbook
ie	10.57 ± 0.03	eV	NIST Webbook
ie	10.55 ± 0.03	eV	NIST Webbook
ie	10.72 ± 0.07	eV	NIST Webbook
ie	11.70 ± 0.10	eV	NIST Webbook
ie	10.90	eV	NIST Webbook
log10ws	0.47		Crippen Method
logp	1.688		Crippen Method
tc	653.00 ± 2.00	K	NIST Webbook
vc	0.247 ± 0.005	m ³ /kmol	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.51356e+01
Coeff. B	-3.84552e+03
Coeff. C	-3.75100e+01
Temperature range (K), min.	261.75
Temperature range (K), max.	403.15

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7784341&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

Legend

ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
pvap:	Vapor pressure
tc:	Critical Temperature
vc:	Critical Volume

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