

# Arsine, triphenyl-

**Other names:**

Triphenylarsine  
Triphenylarsenic  
Arsenic triphenyl  
Triphenylarsane

**Inchi:**

InChI=1S/C18H15As/c1-4-10-16(11-5-1)19(17-12-6-2-7-13-17)18-14-8-3-9-15-18/h1-15H

**InchiKey:**

BPLUKJNHPBNVQL-UHFFFAOYSA-N

**Formula:**

C18H15As

**SMILES:**

c1ccc([As])(c2ccccc2)c2ccccc2)cc1

**Mol. weight [g/mol]:**

306.23

**CAS:**

603-32-7

## Physical Properties

Property code	Value	Unit	Source
affp	908.90	kJ/mol	NIST Webbook
basg	876.40	kJ/mol	NIST Webbook
ie	8.03 ± 0.05	eV	NIST Webbook
ie	8.11	eV	NIST Webbook
ie	7.34 ± 0.07	eV	NIST Webbook
ie	7.60 ± 0.01	eV	NIST Webbook
ie	7.32 ± 0.05	eV	NIST Webbook
log10ws	-14.11		Crippen Method
logp	2.203		Crippen Method
rinpol	2195.00		NIST Webbook
tf	329.55 ± 1.00	K	NIST Webbook
tf	332.30 ± 1.00	K	NIST Webbook
tf	334.00 ± 0.50	K	NIST Webbook

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cps	321.30	J/mol×K	298.50	NIST Webbook
hvapt	75.70	kJ/mol	528.00	NIST Webbook

# Sources

<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C603327&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C603327&amp;Units=SI</a>

# Legend

<b>affp:</b>	Proton affinity
<b>basg:</b>	Gas basicity
<b>cps:</b>	Solid phase heat capacity
<b>hvapt:</b>	Enthalpy of vaporization at a given temperature
<b>ie:</b>	Ionization energy
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>rinpol:</b>	Non-polar retention indices
<b>tf:</b>	Normal melting (fusion) point

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