

# Phosphorus monosulfide

|                      |                             |
|----------------------|-----------------------------|
| Inchi:               | InChI=1S/PS/c1-2            |
| InchiKey:            | VKCLPVFDVVKEKU-UHFFFAOYSA-N |
| Formula:             | PS                          |
| SMILES:              | [P]=S                       |
| Mol. weight [g/mol]: | 63.04                       |
| CAS:                 | 12281-36-6                  |

## Physical Properties

| Property code | Value  | Unit   | Source         |
|---------------|--------|--------|----------------|
| affp          | 698.00 | kJ/mol | NIST Webbook   |
| basg          | 665.50 | kJ/mol | NIST Webbook   |
| ie            | 9.00   | eV     | NIST Webbook   |
| log10ws       | 3.57   |        | Crippen Method |
| logp          | 0.859  |        | Crippen Method |
| mcvol         | 41.220 | ml/mol | McGowan Method |

## Sources

|                 |                                                                                                                                               |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Crippen Method: | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307I">http://pubs.acs.org/doi/abs/10.1021/ci990307I</a>                                     |
| Crippen Method: | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                             |
| McGowan Method: | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                         |
| NIST Webbook:   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C12281366&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C12281366&amp;Units=SI</a> |

## Legend

|          |                                     |
|----------|-------------------------------------|
| affp:    | Proton affinity                     |
| basg:    | Gas basicity                        |
| ie:      | Ionization energy                   |
| log10ws: | Log10 of Water solubility in mol/l  |
| logp:    | Octanol/Water partition coefficient |
| mcvol:   | McGowan's characteristic volume     |

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