

# Tetraisopropoxysilane

|                      |                                                                             |
|----------------------|-----------------------------------------------------------------------------|
| Other names:         | NSC 252164                                                                  |
|                      | Silane, tetraisopropoxy-                                                    |
|                      | Tetraisopropyl o-silicate                                                   |
|                      | Tetrakis(i-propoxy)silane                                                   |
|                      | Tetrakis(isopropoxy)silane                                                  |
|                      | isopropyl silicate ((C3H7O)4Si)                                             |
|                      | silicic acid (H4SiO4), tetraisopropyl ester                                 |
|                      | silicic acid (H4sio4), tetrakis(1-methylethyl) ester                        |
|                      | silicon tetraisopropoxide                                                   |
|                      | tetra(isopropoxy)silane                                                     |
|                      | tetraisopropyl orthosilicate                                                |
|                      | tetraisopropyl silicate                                                     |
|                      | tetrakis(1-methylethyl) orthosilicate                                       |
|                      | tetrakis(isopropyloxy)silane                                                |
| Inchi:               | InChI=1S/C12H28O4Si/c1-9(2)13-17(14-10(3)4,15-11(5)6)16-12(7)8/h9-12H,1-8H3 |
| InchiKey:            | ZUEKXCXHTXJYAR-UHFFFAOYSA-N                                                 |
| Formula:             | C12H28O4Si                                                                  |
| SMILES:              | CC(C)O[Si](OC(C)C)(OC(C)C)OC(C)C                                            |
| Mol. weight [g/mol]: | 264.44                                                                      |

## Physical Properties

| Property code | Value   | Unit | Source                                                                                               |
|---------------|---------|------|------------------------------------------------------------------------------------------------------|
| logp          | 3.122   |      | Crippen Method                                                                                       |
| pc            | 1310.00 | kPa  | Critical properties of some tetraalkoxysilanes and tetraalkoxytitaniums with branched alkyl radicals |
| rinp          | 915.00  |      |                                                                                                      |
| rinp          | 915.00  |      | NIST Webbook                                                                                         |
| rinp          | 915.00  |      | NIST Webbook                                                                                         |

## Temperature Dependent Properties

| Property code | Value | Unit   | Temperature [K] | Source       |
|---------------|-------|--------|-----------------|--------------|
| hvapt         | 52.70 | kJ/mol | 382.50          | NIST Webbook |

# Sources

Cheméo Relay (1.0, beta):

Critical properties of some  
tetraalkoxysilanes and  
tetraalkyltinanes with branched  
alkyl radicals:

Crippen Method:

Crippen Method:

Cheméo Relay (1.0):

<https://www.doi.org/10.1016/j.fluid.2012.06.017>

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C1992489&Units=SI>

<http://pubs.acs.org/doi/abs/10.1021/ci990307l>

[https://www.chemeo.com/doc/models/crippen\\_log10ws](https://www.chemeo.com/doc/models/crippen_log10ws)

# Legend

**hvapt:** Enthalpy of vaporization at a given temperature

**logp:** Octanol/Water partition coefficient

**pc:** Critical Pressure

**rinpola:** Non-polar retention indices

Latest version available from:

<https://www.chemeo.com/cid/28-585-2/Tetraisopropoxysilane.pdf>

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