

# 2,4,6-trimethyl-2,4,6-tris(3,3,3-trifluoropropyl)-1,3,5-trimethylcyclotrisiloxane

**Other names:** 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane  
1,3,5-tris(3,3,3-trifluoropropyl)-1,3,5-trimethylcyclotrisiloxane

**Inchi:** InChI=1S/C12H21F9O3Si3/c1-25(7-4-10(13,14)15)22-26(2,8-5-11(16,17)18)24-27(3,23-25)28-29(12,11)30-31

**InchiKey:** URZHQOCYXDNFGN-UHFFFAOYSA-N

**Formula:** C12H21F9O3Si3

**SMILES:** C[Si]1(CCC(F)(F)F)O[Si](C)(CCC(F)(F)F)O[Si](C)(CCC(F)(F)F)O1

**Mol. weight [g/mol]:** 468.54

## Physical Properties

| Property code | Value | Unit | Source         |
|---------------|-------|------|----------------|
| log10ws       | 0.11  |      | Crippen Method |
| logp          | 6.123 |      | Crippen Method |

## Temperature Dependent Properties

| Property code | Value   | Unit | Temperature [K] | Source   |
|---------------|---------|------|-----------------|--|
| rfi           | 1.35608 |      | 318.15          | The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K |
| rfi           | 1.35816 |      | 313.15          |  |
|               |         |      |                 | The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various organosilicon compounds at different temperatures          |

|     |         |        |  |
|-----|---------|--------|--|
| rfi | 1.35616 | 318.15 | The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various organosilicon compounds at different temperatures          |
| rfi | 1.35410 | 323.15 | The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various organosilicon compounds at different temperatures          |
| rfi | 1.35211 | 328.15 | The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various organosilicon compounds at different temperatures          |
| rfi | 1.36011 | 308.15 | The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K |
| rfi | 1.35808 | 313.15 | The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K |
| rfi | 1.35609 | 318.15 | The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K |
| rfi | 1.35407 | 323.15 | The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K |

|      |         |       |        |  |  |
|------|---------|-------|--------|--|--|
| rfi  | 1.36016 |       | 308.15 | The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various organosilicon compounds at different temperatures          |  |
| rhoI | 1236.44 | kg/m3 | 308.15 | The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various organosilicon compounds at different temperatures          |  |
| rhoI | 1229.89 | kg/m3 | 313.15 | The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various organosilicon compounds at different temperatures          |  |
| rhoI | 1223.32 | kg/m3 | 318.15 | The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various organosilicon compounds at different temperatures          |  |
| rhoI | 1216.77 | kg/m3 | 323.15 | The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various organosilicon compounds at different temperatures          |  |
| rhoI | 1210.19 | kg/m3 | 328.15 | The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various organosilicon compounds at different temperatures          |  |
| rhoI | 1236.63 | kg/m3 | 308.15 | The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K |  |

|      |         |       |        |  |
|------|---------|-------|--------|--|
| rhoI | 1230.05 | kg/m3 | 313.15 | The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K |
| rhoI | 1223.55 | kg/m3 | 318.15 | The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K |
| rhoI | 1216.99 | kg/m3 | 323.15 | The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K |

## Sources

The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K: Crippen Method: <https://www.doi.org/10.1016/j.jct.2015.12.025>  
<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)

The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various organosilicon compounds at different temperatures: <https://www.doi.org/10.1016/j.jct.2014.09.010>

## Legend

**log10ws:** Log10 of Water solubility in mol/l  
**logp:** Octanol/Water partition coefficient  
**rfi:** Refractive Index  
**rhoI:** Liquid Density

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