

# 2-ethylhexyl sulfate

|                      |                                                                                  |
|----------------------|----------------------------------------------------------------------------------|
| Inchi:               | InChI=1S/C8H18O4S/c1-3-5-6-8(4-2)7-12-13(9,10)11/h8H,3-7H2,1-2H3,(H,9,10,11)/p-1 |
| InchiKey:            | MHGOKSLTIUHUBF-UHFFFAOYSA-M                                                      |
| Formula:             | C8H18O4S                                                                         |
| SMILES:              | CCCCC(CC)COS(=O)(=O)[O-]                                                         |
| Mol. weight [g/mol]: | 209.29                                                                           |
| CAS:                 | 72214-01-8                                                                       |

## Physical Properties

| Property code | Value   | Unit    | Source                   |
|---------------|---------|---------|--------------------------|
| af            | 0.6503  |         | Cheméo Relay (1.0)       |
| hf            | -822.12 | kJ/mol  | Cheméo Relay (1.0)       |
| hvap          | 71.51   | kJ/mol  | Cheméo Relay (1.0)       |
| log10ws       | -3.82   |         | Cheméo Relay (1.0)       |
| logp          | 1.680   |         | Crippen Method           |
| mcvol         | 161.260 | ml/mol  | McGowan Method           |
| pc            | 2402.36 | kPa     | Cheméo Relay (1.0, beta) |
| tb            | 513.07  | K       | Cheméo Relay (1.0)       |
| tc            | 665.07  | K       | Cheméo Relay (1.0)       |
| tf            | 212.05  | K       | Cheméo Relay (1.0)       |
| vc            | 0.576   | m3/kmol | Cheméo Relay (1.0)       |

## Correlations

| Information                 | Value                         |
|-----------------------------|-------------------------------|
| Property code               | pvap                          |
| Equation                    | $\ln(P_{vp}) = A + B/(T + C)$ |
| Coeff. A                    | 1.18906e+01                   |
| Coeff. B                    | -3.52578e+03                  |
| Coeff. C                    | -8.81480e+01                  |
| Temperature range (K), min. | 392.02                        |
| Temperature range (K), max. | 624.05                        |

# Sources

|                                      |                                                                                                                                                                                         |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Crippen Method:                      | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                                                                       |
| Cheméo Relay (1.0):                  |                                                                                                                                                                                         |
| Cheméo Relay (1.0, beta):            |                                                                                                                                                                                         |
| The Yaws Handbook of Vapor Pressure: | <a href="https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure">https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure</a> |
| McGowan Method:                      | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                                                                   |
| Crippen Method:                      | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>                                                                               |

## Legend

|                            |                                                 |
|----------------------------|-------------------------------------------------|
| <b>af:</b>                 | Acentric Factor                                 |
| <b>hf:</b>                 | Enthalpy of formation at standard conditions    |
| <b>h<sub>vap</sub>:</b>    | Enthalpy of vaporization at standard conditions |
| <b>log<sub>10ws</sub>:</b> | Log10 of Water solubility in mol/l              |
| <b>log<sub>p</sub>:</b>    | Octanol/Water partition coefficient             |
| <b>mcvol:</b>              | McGowan's characteristic volume                 |
| <b>pc:</b>                 | Critical Pressure                               |
| <b>p<sub>vap</sub>:</b>    | Vapor pressure                                  |
| <b>tb:</b>                 | Normal Boiling Point Temperature                |
| <b>tc:</b>                 | Critical Temperature                            |
| <b>tf:</b>                 | Normal melting (fusion) point                   |
| <b>vc:</b>                 | Critical Volume                                 |

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