# Sulfadiazine

**Other names:**

2-(4-Aminobenzenesulfonamido)pyrimidine
2-(4-Aminobenzenesulfonylamino)pyrimidine
2-(p-Aminobenzenesulfonamido)pyrimidin
2-Sulfanilamidopyrimidine
2-Sulfanilylaminopyrimidine
2-Sulfapyrimidine
4-Amino-N-(2-pyrmidinyl)benzene sulfonamide (sulfadiazine)
4-[[(Pyrimidin-2-yl)amino]sulfonyl]aniline
4-amino-N-2-pyrimidinylbenzenesulfonamide
A-306
Adiazin
Adiazine
Benzenesulfonamide, 4-amino-N-2-pyrimidinyl-
Coco-Diazine
Codiazine
Cremodiazine
Cremotres
Debenal
Deltazina
Di-Azo-Mul
Diazin
Diazolone
Diazovit
Diazyl
Eskadiazine
Honey diazine
Lipo-Diazine
Lipo-Levazine
Liquadiazine
Metha-Meridiazine
Microsulfon
N(Sup1)-2-Pyrimidinylsulfanilamide
N(Sup1)-2-Pyrimidylsulfanilamide
N1-2-Pyrimidinylsulfanilamide
N1-2-Pyrimidylsulfanilamide
Neazine
Neotrizine
Palatrize
Pecta-diazine, suspension
Piridisir

Pirimal
Pyrimal
Pyrimidine, 2-sulfanilamido-
Quadetts
Quadramoid
RP 2616
S. N. 112
SDA
Sanodiazine
Silvadene
Spofadrizine
Sterazine
Sulfadiazene
Sulfadiazin
Sulfadiazina Reig Jofre
Sulfanilamide, N1-2(1H)-pyrimidinylidene-
Sulfanilamide, N1-2-pyrimidinyl-
Sulfanilamidopyrimidine
Sulfapirimidin
Sulfapyrimidin
Sulfapyrimidine
Sulfatryl
Sulfazin
Sulfazine
Sulfolex
Sulfonsol
Sulfose
Sulphadiazine
Sulphadiazine E
Terfonyl
Theradiazine
Thi-Di-Mer
Tri-Sulfameth
Trifonamide
Triple Sulfas
Trisem
Truozine

**Inchi:** InChI=1S/C10H10N4O2S/c11-8-2-4-9(5-3-8)17(15,16)14-10-12-6-1-7-13-10/h1-7H,11H2
**InchiKey:** SEEPANYCNGTZFQ-UHFFFAOYSA-N
**Formula:** C10H10N4O2S
**SMILES:** Nc1ccc(S(=O)(=O)Nc2ncccn2)cc1
**Mol. weight [g/mol]:** 250.28
**CAS:** 68-35-9

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| log10ws | -1.54 | | Aqueous Solubility Prediction Method |
| logp | 0.860 | | Crippen Method |
| mcvol | 172.250 | ml/mol | McGowan Method |
| rinpol | 2523.00 | | NIST Webbook |
| tf | 527.27 | K | Aqueous Solubility Prediction Method |
| tf | 538.80 ± 0.50 | K | NIST Webbook |
| tf | 534.00 ± 3.00 | K | NIST Webbook |
| tf | 531.00 ± 4.00 | K | NIST Webbook |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| hfust | 44.30 | kJ/mol | 532.70 | NIST Webbook |
| hfust | 44.30 | kJ/mol | 520.40 | NIST Webbook |
| hfust | 31.20 | kJ/mol | 538.70 | NIST Webbook |
| hfust | 31.20 | kJ/mol | 538.70 | NIST Webbook |

# Sources

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|---|---|
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Solubility and preferential solvation of sulfadiazine inmethanol + water mixtures at several temperatures:** | https://www.doi.org/10.1016/j.fluid.2014.07.013 |
| **Solubility temperature dependence and preferential solvation of sulfadiazine in 1,4-dioxane + water co-solvent mixtures:** | https://www.doi.org/10.1016/j.fluid.2015.03.046 |
| **Solubilities of Sulfadiazine, Sulfamethazine, Sulfadimethoxine, Sulfamethoxydiazine, Sulfachloropyridazine, and Sulfamethoxazole, and in Methanol, Ethanol, 1-Propanol, 2-Propanol, 1-Butanol, and 2-Butanol from (298.15 to 318.15) K:** | https://www.doi.org/10.1021/je0603978 |
| **Solubilities of Sulfadiazine, Sulfamethazine, Sulfadimethoxine, Sulfamethoxydiazine, Sulfachloropyridazine, and Sulfamethoxazole, and in Water from (298.15 to 333.15) K:** | https://www.doi.org/10.1021/je900742p |
| **Aqueous Solubility Prediction Method:** | http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C68359&Units=SI |

# Legend

| | |
|---|---|
| **hfust:** | Enthalpy of fusion at a given temperature |
| **log10ws:** | Log10 of Water solubility in mol/l |
| **logp:** | Octanol/Water partition coefficient |
| **mcvol:** | McGowan's characteristic volume |
| **rinpol:** | Non-polar retention indices |
| **tf:** | Normal melting (fusion) point |