

# COUMARIN-3-CARBOXYLIC ACID

|                      |                                                                                                                                                                                                                                                                                                                                       |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other names:         | 2-Oxobenzopyran-3-carboxylic acid<br>2-oxo-2H-1-benzopyran-3-carboxylic acid<br>2-oxo-2H-chromene-3-carboxylic acid<br>2H-1-Benzopyran-3-carboxylic acid, 2-oxo-<br>2H-1-benzopyran-2-one-3-carboxylic acid<br>3-carboxycoumarin<br>Benzopyran-3-carboxylic acid, 2H-1-, 2-oxo<br>G 1<br>Malonic acid, salicylidene-, «delta»-lactone |
| Inchi:               | InChI=1S/C10H6O4/c11-9(12)7-5-6-3-1-2-4-8(6)14-10(7)13/h1-5H,(H,11,12)                                                                                                                                                                                                                                                                |
| InchiKey:            | ACMLKANOGIVEPB-UHFFFAOYSA-N                                                                                                                                                                                                                                                                                                           |
| Formula:             | C10H6O4                                                                                                                                                                                                                                                                                                                               |
| SMILES:              | O=C(O)c1cc2ccccc2oc1=O                                                                                                                                                                                                                                                                                                                |
| Mol. weight [g/mol]: | 190.15                                                                                                                                                                                                                                                                                                                                |

## Physical Properties

| Property code | Value   | Unit   | Source             |
|---------------|---------|--------|--------------------|
| hf            | -508.52 | kJ/mol | Cheméo Relay (1.0) |
| ie            | 9.28    | eV     | Cheméo Relay (1.0) |
| log10ws       | -2.66   |        | Cheméo Relay (1.0) |
| logp          | 1.491   |        | Crippen Method     |
| mcvol         | 127.720 | ml/mol | McGowan Method     |
| tb            | 623.00  | K      | Cheméo Relay (1.0) |
| tf            | 465.57  | K      | Cheméo Relay (1.0) |

## Sources

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

Cheméo Relay (1.0):

Cheméo Relay (1.0, beta):

Equilibrium partitioning of drug <https://www.doi.org/10.1016/j.jct.2013.02.011>

molecules between aqueous and amino  
acid ester-based ionic liquids:

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C531817&Units=SI>

McGowan Method:

<http://link.springer.com/article/10.1007/BF02311772>

Crippen Method:

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

# Legend

|                 |                                              |
|-----------------|----------------------------------------------|
| <b>hf:</b>      | Enthalpy of formation at standard conditions |
| <b>ie:</b>      | Ionization energy                            |
| <b>log10ws:</b> | Log10 of Water solubility in mol/l           |
| <b>logp:</b>    | Octanol/Water partition coefficient          |
| <b>mcvol:</b>   | McGowan's characteristic volume              |
| <b>tb:</b>      | Normal Boiling Point Temperature             |
| <b>tf:</b>      | Normal melting (fusion) point                |

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