

# SUDAN I

## Other names:

1-(2-Hydroxynaphthyl)azobenzene  
1-(Phenylazo)-2-hydroxynaphthalene  
1-(Phenylazo)-2-naphthalenol  
1-(Phenylazo)-2-naphthol  
1-Benzeneazo-2-naphthol  
1-Benzoazo-2-naphthol  
1-Phenylazo-«beta»-naphthol  
2-Hydroxy-1-phenylazonaphthalene  
2-Hydroxynaphthyl-1-azobenzene  
2-Naphthalenol, 1-(2-phenyldiazenyl)-  
2-Naphthol, 1-(phenylazo)-  
2-Naphtholazobenzene  
Atul Orange R  
Benzene-1-azo-2-naphthol  
Benzeneazo-«beta»-naphthol  
Brasilazina Oil Orange  
Brilliant Oil Orange R  
C.I. 12055  
C.I. Solvent Yellow 14  
CI 12055  
Calco Oil Orange 7078  
Calco Oil Orange 7078-Y  
Calco Oil Orange Z-7078  
Calcogas M  
Calcogas Orange NC  
Campbelline Oil Orange  
Carminaph  
Ceres Orange R  
Cerotinorange G  
Disperse Yellow 97  
Dispersol Yellow PP  
Dunkelgelb  
Enial Orange I  
Fast Oil Orange  
Fast Oil Orange I  
Fast Orange  
Fat Orange 4A  
Fat Orange G  
Fat Orange I  
Fat Orange R

Fat Orange RS  
Fat Soluble Orange  
Fettorange 4a  
Fettorange R  
Fettorange lg  
Grasal Orange  
Grasan Orange R  
Hidaco Oil Orange  
Lacquer Orange VG  
Morton Orange Y  
Motiorange R  
NCI-C53929  
Oil Orange  
Oil Orange 2311  
Oil Orange 2B  
Oil Orange 31  
Oil Orange 7078-V  
Oil Orange E  
Oil Orange EP  
Oil Orange G  
Oil Orange PEL  
Oil Orange R  
Oil Orange R-14  
Oil Orange Z-7078  
Oil Soluble Orange  
Oleal Orange R  
Orange 3RA Soluble in Grease  
Orange A L'Huile  
Orange Insoluble Olg  
Orange Pel  
Orange R Fat Soluble  
Orange Resenole No. 3  
Orange Soluble A L'Huile  
Organol Orange  
Orient Oil Orange PS  
Petrol Orange Y  
Plastoresin Orange F4A  
Pyronalorange  
Resinol Orange R  
Resoform Orange G  
Sansel Orange G  
Scharlach B  
Silotras Orange TR

Solvent Yellow 14  
Solvent Yellow No. 14  
Somalia Orange I  
Soudan I  
Spirit Orange  
Spirit Yellow I  
Stearix Orange  
Sudan 1  
Sudan I  
Sudan J  
Sudan Orange R  
Sudan Orange RA  
Sudan Orange RA New  
Sudan Yellow  
Tertrogras Orange SV  
Toyo Oil Orange  
Waxakol Orange GL  
Waxoline Orange EP-FW  
Waxoline Yellow I  
Waxoline Yellow IM  
Waxoline Yellow IP  
Waxoline Yellow IS  
Zlut rozpoustedlova 14  
«alpha»-Phenylazo-«beta»-naphthol

**Inchi:** InChI=1S/C16H12N2O/c19-15-11-10-12-6-4-5-9-14(12)16(15)18-17-13-7-2-1-3-8-13/h1-14  
**InchiKey:** MRQIXHXHHPWVIL-UHFFFAOYSA-N  
**Formula:** C16H12N2O  
**SMILES:** Oc1ccc2ccccc2c1N=Nc1cccc1  
**Mol. weight [g/mol]:** 248.29

## Physical Properties

| Property code | Value   | Unit   | Source             |
|---------------|---------|--------|--------------------|
| hf            | 322.85  | kJ/mol | Cheméo Relay (1.0) |
| hvap          | 98.82   | kJ/mol | Cheméo Relay (1.0) |
| ie            | 7.64    | eV     | Cheméo Relay (1.0) |
| log10ws       | -4.03   |        | Cheméo Relay (1.0) |
| logp          | 4.961   |        | Crippen Method     |
| mcvol         | 190.850 | ml/mol | McGowan Method     |
| pc            | 2563.69 | kPa    | Joback Method      |
| tb            | 657.65  | K      | Cheméo Relay (1.0) |

|    |         |   |                    |
|----|---------|---|--------------------|
| tc | 1009.18 | K | Cheméo Relay (1.0) |
| tf | 406.18  | K | Cheméo Relay (1.0) |

## Sources

|                                  |                                                                                                                                           |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Joback Method:</b>            | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>                                     |
| <b>McGowan Method:</b>           | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                     |
| <b>Crippen Method:</b>           | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>                                 |
| <b>Crippen Method:</b>           | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                         |
| <b>Cheméo Relay (1.0):</b>       |                                                                                                                                           |
| <b>Cheméo Relay (1.0, beta):</b> |                                                                                                                                           |
| <b>NIST Webbook:</b>             | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C842079&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C842079&amp;Units=SI</a> |

## Legend

|                 |                                                 |
|-----------------|-------------------------------------------------|
| <b>hf:</b>      | Enthalpy of formation at standard conditions    |
| <b>hvap:</b>    | Enthalpy of vaporization 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>pc:</b>      | Critical Pressure                               |
| <b>tb:</b>      | Normal Boiling Point Temperature                |
| <b>tc:</b>      | Critical Temperature                            |
| <b>tf:</b>      | Normal melting (fusion) point                   |

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