

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Menyanthes trifoliata*

| Activities Count | Chemical          | Plant Part | Low PPM | High PPM | StdDev               | Reference Citation   |
|------------------|-------------------|------------|---------|----------|----------------------|--|
| 16               | ACETIC-ACID       | Plant      |         |          |                      | Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.   |
| 2                | ALPHA-SPINASTEROL | Root       |         |          |                      | --   |
| 112              | ASCORBIC-ACID     | Leaf       |         | 2047.0   | -0.25398458110017125 | --   |
| 9                | BENZYL-ALCOHOL    | Leaf       |         |          |                      | Chemical Constituents of Oriental Herbs (3 diff. books)  |
| 53               | BETA-CAROTENE     | Leaf       |         |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                             |
| 13               | BETULIN           | Root       |         |          |                      | --   |
| 22               | BETULINIC-ACID    | Root       | 1000.0  | 8000.0   | 0.2872089038194805   | --   |
| 22               | BETULINIC-ACID    | Rhizome    |         | 1000.0   | 1.0                  | --   |
| 6                | BUTYRIC-ACID      | Plant      |         |          |                      | Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.   |
| 102              | CAFFEIC-ACID      | Leaf       |         |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                             |
| 77               | CHLOROGENIC-ACID  | Leaf       |         |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                             |
| 20               | CHOLINE           | Leaf       |         |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                             |
| 1                | DEOXYLOGANIN      | Plant      |         |          |                      | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

| Activities Count | Chemical     | Plant Part | Low PPM | High PPM | StdDev | Reference Citation   |
|------------------|--------------|------------|---------|----------|--------|--|
| 61               | FERULIC-ACID | Leaf       |         |          |        | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                                   |
| 15               | FOLACIN      | Leaf       |         |          |        | --   |
| 23               | FOLIC-ACID   | Leaf       |         |          |        | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                                   |
| 13               | FORMIC-ACID  | Plant      |         |          |        | Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.         |
| 5                | GENTIANIDINE | Leaf       |         |          |        | --   |
| 24               | GENTIANINE   | Leaf       |         |          |        | --   |
| 14               | HYPERIN      | Leaf       |         |          |        | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                                   |
| 30               | HYPEROSIDE   | Plant      |         |          |        | --   |
| 19               | INULIN       | Root       |         |          |        | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                                   |
| 75               | KAEMPFEROL   | Plant      |         |          |        | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| 4                | LOGANIN      | Root       |         |          |        | --   |
| 4                | LOGANIN      | Leaf       |         |          |        | --   |
| 2                | LOLIOLIDE    | Shoot      |         |          |        | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.  |
| 21               | LUPEOL       | Root       |         |          |        | --   |

| Activities Count | Chemical               | Plant Part | Low PPM | High PPM | StdDev | Reference Citation   |
|------------------|------------------------|------------|---------|----------|--------|--|
| 2                | MELIATIN               | Plant      |         |          |        | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.                                   |
| 13               | P-HYDROXY-BENZOIC-ACID | Plant      |         |          |        | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| 24               | PECTIN                 | Root       |         |          |        | --   |
| 6                | PHENETHYL-ALCOHOL      | Leaf       |         |          |        | Chemical Constituents of Oriental Herbs (3 diff. books)  |
| 4                | PHOSPHORIC-ACID        | Plant      |         |          |        | Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.         |
| 2                | PHYTOSTEROLS           | Leaf       |         |          |        | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                                   |
| 43               | PROTOCATECHUIC-ACID    | Leaf       |         |          |        | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                                   |
| 176              | QUERCETIN              | Plant      |         |          |        | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| 87               | RUTIN                  | Leaf       |         |          |        | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                                   |
| 34               | SALICYLIC-ACID         | Plant      |         |          |        | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| 22               | SCOPARONE              | Shoot      |         |          |        | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.  |

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|------------------|---------------|------------|---------|----------|--------------------|--|
| 44               | SCOPOLETIN    | Shoot      |         |          |                    | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.  |
| 44               | SCOPOLETIN    | Plant      |         |          |                    | --   |
| 9                | SINAPIC-ACID  | Plant      |         |          |                    | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 9                | SWEROSIDE     | Plant      |         |          |                    | --   |
| 35               | TANNIN        | Plant      |         | 30000.0  | -0.783056468120132 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| 2                | TRIFOLIN      | Leaf       |         |          |                    | --   |
| 24               | VANILLIC-ACID | Plant      |         |          |                    | --   |