

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Piper methysticum

| Activities Count | Chemical                              | Plant Part | Low PPM | High PPM | StdDev | Refernce Citation  |
|------------------|---------------------------------------|------------|---------|----------|--------|--|
| 0                | KAVALACTONES                          | Root       | 30000.0 | 200000.0 |        | --   |
| 18               | METHYSTICIN                           | Rhizome    | 12000.0 | 13400.0  |        | --   |
| 29               | KAWAIN                                | Rhizome    | 9300.0  | 12000.0  |        | --   |
| 12               | YANGONIN                              | Rhizome    | 6800.0  | 10000.0  |        | --   |
| 14               | DIHYDROKAWAIN                         | Rhizome    | 6000.0  | 10500.0  |        | --   |
| 18               | DIHYDROMETHYSTICIN                    | Rhizome    | 5000.0  | 8500.0   |        | --   |
| 0                | FLAVOKAWIN-A                          | Leaf       |         |          |        | --   |
| 12               | YANGONIN                              | Plant      |         |          |        | --   |
| 18               | CINNAMIC-ACID                         | Rhizome    |         |          |        | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| 0                | OCTADECANOL                           | Root       |         | 5300.0   |        | --   |
| 0                | TETRAHYDROYANGONIN                    | Stem       |         |          |        | --   |
| 0                | METHYLENE-DIOXY-3,4-CINNAMAOYLACETONE | Rhizome    |         |          |        | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| 0                | FLAVOKAVIN-A                          | Plant      |         |          |        | --   |
| 14               | DIHYDROKAWAIN                         | Leaf       |         |          |        | --   |
| 0                | DESMETHOXYANGONIN                     | Plant      |         |          |        | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| 0                | YANGONIN-I                            | Plant      |         |          |        | --   |
| 0                | 5,6-DIHYDROYANGONIN                   | Root       |         |          |        | --   |
| 18               | METHYSTICIN                           | Stem       |         |          |        | --   |

| Activities Count | Chemical                             | Plant Part          | Low PPM | High PPM | StdDev             | Reference Citation   |
|------------------|--------------------------------------|---------------------|---------|----------|--------------------|--|
| 1                | CHOLESTEROL                          | Rhizome             |         |          |                    | --   |
| 0                | 11-HYDROXY-12-METHOXYDIHYDROKAWAIN   | Plant               |         |          |                    | --   |
| 0                | FLAVOKAWIN-A                         | Resin, Exudate, Sap |         | 1620.0   |                    | --   |
| 0                | PIPERMETHYSTINE                      | Plant               |         |          |                    | J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991.  |
| 0                | CAPRONIC-ACID                        | Rhizome             |         |          |                    | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| 0                | METHYLENE-DIOXY-3,4-CINNAMAOYLKETONE | Root                |         |          |                    | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 0                | TETRAHYDROYANGONIN                   | Plant               |         |          |                    | --   |
| 0                | HEXADECAN-1-OL                       | Rhizome             |         |          |                    | --   |
| 15               | FIBER                                | Root                |         | 200000.0 | 2.4848485237263582 | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 0                | DEMETHOXYANGONIN                     | Leaf                |         |          |                    | --   |
| 0                | DEMETHOXYANGONIN                     | Plant               |         |          |                    | --   |
| 0                | P-METHOXY-PHENYL-ACETIC-ACID         | Rhizome             |         |          |                    | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| 0                | WATER                                | Root                |         | 120000.0 | -4.249475521429359 | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |

| Activities Count | Chemical                            | Plant Part          | Low PPM | High PPM | StdDev | Reference Citation   |
|------------------|-------------------------------------|---------------------|---------|----------|--------|--|
| 5                | 5,6-DEHYDROKAWAIN                   | Plant               |         |          |        | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.   |
| 0                | CEPHARADIONE-A                      | Root                |         | 2.0      |        | --   |
| 0                | 11,12-DIMETHOXYDIHYDROKAWAIN        | Plant               |         |          |        | --   |
| 0                | FLAVOKAWIN-A                        | Root                |         |          |        | --   |
| 18               | METHYSTICIN                         | Plant               |         |          |        | --   |
| 0                | 11-METHOXY-12-HYDROXY-DEHYDROKAWAIN | Root                |         |          |        | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 20               | BENZOIC-ACID                        | Rhizome             |         |          |        | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| 2                | MALTOSE                             | Root                |         |          |        | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 0                | FLAVOKAWIN-B                        | Resin, Exudate, Sap |         | 1400.0   |        | --   |
| 1                | EICOSANOL                           | Root                |         | 2100.0   |        | --   |
| 0                | DEMETHOXYANGONIN                    | Stem                |         |          |        | --   |
| 0                | CINNAMYLIDENACETOL                  | Plant               |         |          |        | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| 0                | FLAVOKAWAIN                         | Root                |         | 200.0    |        | --   |
| 0                | TRANS-PHYTOL                        | Root                |         | 10500.0  |        | --   |

| Activities Count | Chemical                           | Plant Part | Low PPM | High PPM | StdDev | Reference Citation   |
|------------------|------------------------------------|------------|---------|----------|--------|--|
| 0                | 11-HYDROXY-YANGONIN                | Root       |         |          |        | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 29               | KAWAIN                             | Leaf       |         |          |        | --   |
| 2                | CAMPESTEROL                        | Rhizome    |         |          |        | --   |
| 0                | EICOSAN-1-OL                       | Rhizome    |         |          |        | --   |
| 0                | KAWAINIC-ACID                      | Plant      |         |          |        | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| 0                | 2-METHOXYCINNAMIC-ACID-PYRROLIDIDE | Rhizome    |         |          |        | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| 6                | ANISIC-ACID                        | Rhizome    |         |          |        | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| 0                | M-METHOXYCINNAMIC-ACID-PYRROLIDIDE | Plant      |         |          |        | --   |
| 0                | FLAVOKAWIN-A                       | Rhizome    |         |          |        | --   |
| 0                | DOCOSANOL                          | Root       |         | 2000.0   |        | --   |
| 0                | DEMETHOXY YANGONIN                 | Rhizome    |         |          |        | --   |
| 18               | CINNAMIC-ACID                      | Plant      |         |          |        | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses  |
| 0                | HYDROXYCINNAMIC-ACID               | Rhizome    |         |          |        | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |

| Activities Count | Chemical                                      | Plant Part          | Low PPM | High PPM | StdDev              | Reference Citation   |
|------------------|---|---------------------|---------|----------|---------------------|--|
| 0                | TETRACOSANOL                                  | Root                |         | 3200.0   |                     | --   |
| 5                | 5,6-DEHYDROKAWAIN                             | Leaf                |         |          |                     | --   |
| 29               | KAWAIN  | Resin, Exudate, Sap |         | 33800.0  |                     | --   |
| 47               | BETA-SITOSTEROL                               | Rhizome             |         |          |                     | --   |
| 29               | KAWAIN  | Plant               |         |          |                     | --   |
| 3                | 3,4-METHYLENE-DIOXYCINNAMIC-ACID-BORNYL-ESTER | Root                |         |          |                     | --   |
| 0                | 11-HYDROXY-12-METHOXYDIHYDROKAWAIN            | Root                |         | 9.0      |                     | --   |
| 0                | DOCOSAN-1-OL                                  | Rhizome             |         |          |                     | --   |
| 0                | DODECAN-1-OL                                  | Rhizome             |         |          |                     | --   |
| 0                | DIMETHOXYKAVAIN                               | Plant               |         |          |                     | --   |
| 0                | DEMETHOXYANGONIN                              | Root                |         |          |                     | --   |
| 20               | BENZOIC-ACID                                  | Plant               |         |          |                     | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses  |
| 0                | FLAVOKAVIN-B                                  | Root                |         |          |                     | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| 0                | SUGARS  | Root                |         | 32000.0  | -0.6957589764007501 | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 12               | YANGONIN                                      | Stem                |         |          |                     | --   |
| 29               | KAWAIN  | Stem                |         |          |                     | --   |
| 47               | BETA-SITOSTEROL                               | Leaf                |         |          |                     | --   |

| Activities Count | Chemical                     | Plant Part          | Low PPM | High PPM | StdDev | Reference Citation   |
|------------------|------------------------------|---------------------|---------|----------|--------|--|
| 0                | FLAVOKAVIN-A                 | Root                |         |          |        | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| 0                | FLAVOKAWIN-B                 | Plant               |         |          |        | --   |
| 0                | 4-OXO-N-NANANOIC-ACID        | Rhizome             |         |          |        | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| 0                | 11,12-DIMETHOXYDIHYDROKAWAIN | Root                |         | 22.0     |        | --   |
| 0                | HYDROXYKAWAIN                | Plant               |         |          |        | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 18               | DIHYDROMETHYSTICIN           | Root                |         | 160.0    |        | --   |
| 0                | CINNAMIC-ACID-PYRROLIDIDE    | Plant               |         |          |        | --   |
| 0                | TETRADECAN-1-OL              | Rhizome             |         |          |        | --   |
| 0                | DEHYDROMETHYSTICIN           | Plant               |         |          |        | --   |
| 0                | 5-DIHYDROYANGONIN            | Plant               |         |          |        | --   |
| 12               | YANGONIN                     | Resin, Exudate, Sap |         | 43300.0  |        | --   |
| 29               | KAWAIN                       | Root                |         | 306.0    |        | --   |
| 0                | 7-8-DIHYDROKAWAIN            | Rhizome             |         |          |        | --   |
| 1                | 5,7-DIMETHOXYFLAVONE         | Root                |         | 40.0     |        | --   |
| 14               | SUCROSE                      | Root                |         |          |        | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 0                | FLAVOKAWIN-A                 | Plant               |         |          |        | --   |

| Activities Count | Chemical                   | Plant Part | Low PPM | High PPM | StdDev            | Reference Citation   |
|------------------|----------------------------|------------|---------|----------|-------------------|--|
| 0                | RESINIC-ACID               | Root       |         | 233000.0 |                   | Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.   |
| 12               | YANGONIN                   | Leaf       |         |          |                   | --   |
| 1                | HEXADECANOL                | Root       |         | 3600.0   |                   | --   |
| 18               | DIHYDROMETHYSTICIN         | Stem       |         |          |                   | --   |
| 14               | DIHYDROKAWAIN              | Root       |         | 740.0    |                   | --   |
| 0                | CINNAMALAKETONE            | Root       |         |          |                   | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 0                | TETRACOSAN-1-OL            | Rhizome    |         |          |                   | --   |
| 0                | DEHYDROKAWAIN              | Stem       |         |          |                   | --   |
| 0                | 5,6,7,8-TETRAHYDROYANGONIN | Plant      |         |          |                   | J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991.  |
| 0                | FLAVOKAWIN-C               | Rhizome    |         |          |                   | --   |
| 0                | 5,6,7,8-TETRAHYDROYANGONIN | Rhizome    |         |          |                   | --   |
| 0                | DESMETHOXYANGONIN          | Rhizome    |         | 10000.0  |                   | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| 0                | STIGMASTENDIONE            | Plant      |         |          |                   | --   |
| 0                | FLAVOKAWAIN-C              | Plant      |         | 200.0    |                   | J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991.  |
| 0                | RESIN                      | Root       |         | 53000.0  | 1.582097407375253 | Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.   |
| 0                | TETRAHYDROYANGONIN         | Root       |         |          |                   | --   |

| Activities Count | Chemical                                | Plant Part          | Low PPM | High PPM | StdDev             | Reference Citation   |
|------------------|---|---------------------|---------|----------|--------------------|--|
| 7                | GLUCOSE                                 | Root                |         |          |                    | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 18               | DIHYDROMETHYSTICIN                      | Leaf                |         |          |                    | --   |
| 0                | 11,12-DIMETHOXYDIHYDROKAWAIN            | Rhizome             |         |          |                    | --   |
| 47               | BETA-SITOSTEROL                         | Root                |         | 166000.0 | 3.7415916306490002 | --   |
| 0                | STIGMASTANOL                            | Rhizome             |         |          |                    | --   |
| 0                | DEHYDROKAWAIN                           | Resin, Exudate, Sap |         | 11100.0  |                    | --   |
| 0                | 3,4-(METHYLENE-DIOXY)CINNAMYLIDENACETOL | Plant               |         |          |                    | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| 12               | YANGONIN                                | Root                |         | 280.0    |                    | --   |
| 0                | FLAVOKAWIN-C                            | Root                |         |          |                    | --   |
| 0                | 3-4-METHYLENEDIOXY-CINNAMYLIDENEACETONE | Resin, Exudate, Sap |         | 25450.0  |                    | --   |
| 0                | CINNAMALACETONE                         | Rhizome             |         |          |                    | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| 0                | STIGMASTEN-4,3,6-DIONE                  | Plant               |         |          |                    | --   |
| 18               | DIHYDROMETHYSTICIN                      | Plant               |         |          |                    | --   |
| 6                | PINOSTROBIN                             | Root                |         | 70.0     |                    | --   |
| 12               | STIGMASTEROL                            | Rhizome             |         |          |                    | --   |
| 8                | FRUCTOSE                                | Root                |         |          |                    | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 0                | DIHYDROKAWAIN-5-OL                      | Rhizome             |         |          |                    | --   |
| 0                | (+)-5-6-7-8-TETRAHYDROYANGONIN          | Rhizome             |         | 3.0      |                    | --   |



| Activities Count | Chemical                       | Plant Part          | Low PPM | High PPM | StdDev              | Reference Citation   |
|------------------|--------------------------------|---------------------|---------|----------|---------------------|--|
| 0                | ASH                            | Root                |         | 32000.0  | -1.0153986345301809 | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 0                | PIPERMETHYSTINE                | Leaf                |         | 1700.0   |                     | --   |
| 0                | DEHYDROKAWAIN                  | Root                |         |          |                     | --   |
| 0                | 2',4'-DIMETHYLCHALCONARINGENIN | Plant               |         |          |                     | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| 0                | YANGOININ                      | Rhizome             |         |          |                     | --   |
| 0                | FLAVOKAWIN-B                   | Leaf                |         |          |                     | --   |
| 0                | 11-METHOXYANGONIN              | Rhizome             |         |          |                     | --   |
| 0                | CINNAMIC-ACID-PYRROLIDIDE      | Rhizome             |         |          |                     | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| 5                | STARCH                         | Root                |         | 430000.0 | 0.47798800143335857 | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 2                | PHENYLACETIC-ACID              | Rhizome             |         |          |                     | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| 18               | METHYSTICIN                    | Resin, Exudate, Sap |         | 22200.0  |                     | --   |
| 0                | FLAVOKAVIN-C                   | Plant               |         |          |                     | --   |
| 14               | DIHYDROKAWAIN                  | Stem                |         |          |                     | --   |
| 0                | DIHYDROKAWAIN-5-OL             | Plant               |         |          |                     | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |

| Activities Count | Chemical                   | Plant Part          | Low PPM | High PPM | StdDev             | Reference Citation   |
|------------------|----------------------------|---------------------|---------|----------|--------------------|--|
| 0                | YANGONIN-III               | Plant               |         |          |                    | --   |
| 0                | 7,8-DIHYDROYANGONIN        | Root                |         |          |                    | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.                            |
| 0                | OCTADECAN-1-OL             | Rhizome             |         |          |                    | --   |
| 0                | COMPOUND-A                 | Root                |         | 90.0     |                    | --   |
| 0                | 11-METHOXYYANGONIN         | Plant               |         |          |                    | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                           |
| 0                | TRANS-PHYTOL               | Rhizome             |         |          |                    | --   |
| 0                | FLAVOKAWIN-B               | Rhizome             |         |          |                    | --   |
| 0                | 11-METHOXYNORYANGONIN      | Rhizome             |         |          |                    | --   |
| 3                | CINNAMIC-ACID-BORNYL-ESTER | Root                |         | 300.0    |                    | --   |
| 0                | PROTEIN                    | Root                |         | 36000.0  | -0.925459680358799 | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.                            |
| 9                | OXALIC-ACID                | Root                |         |          |                    | Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus. |
| 18               | METHYSTICIN                | Root                |         | 140.0    |                    | --   |
| 0                | FLAVOKAVIN-B               | Plant               |         |          |                    | --   |
| 14               | DIHYDROKAWAIN              | Plant               |         |          |                    | --   |
| 0                | YANGONIN-II                | Plant               |         |          |                    | --   |
| 0                | 7-8-DIHYDROKAWAIN          | Plant               |         |          |                    | --   |
| 18               | METHYSTICIN                | Leaf                |         | 7100.0   |                    | --   |
| 0                | CINNAMALACETONE            | Resin, Exudate, Sap |         | 64550.0  |                    | --   |
| 0                | 11-METHOXYNORYANGONIN      | Plant               |         |          |                    | --   |