

**Dr. Duke's Phytochemical and Ethnobotanical Database**

**Chemicals Found in Smilax spp**

| Activity Count | Chemical  | Plant Part | Low PPM | High PPM | StdDev               | Reference Citation  |
|----------------|---|------------|---------|----------|----------------------|---|
| 0              | 25S-SPIROSTAN-6-BETA-OL-3-O-BETA-D-GLUCOPYRANOSYL-(1->4)-(ALPHA-L-ARABINOPYRANOSYL-(1->6))-BETA-D-GLUCOPYRANOSIDE | Root       | --      | --       |                      | Bernardo, R. R., Pinto, A. V., Parente, J. P. 1996. Steroidal Saponins from <i>Smilax officinalis</i> . Phytochemistry, 43(2): 465-469. |
| 5              | ALUMINUM  | Root       | 157     | 745      | 0.08725464107028212  |   |
| 112            | ASCORBIC-ACID   | Root       | --      | --       |                      |   |
| 0              | ASH   | Root       | 13230   | 63000    | -0.13017850342957962 |   |
| 53             | BETA-CAROTENE   | Root       | 8       | 36       | -0.20622961094825273 |   |
| 47             | BETA-SITOSTEROL   | Root       | --      | --       |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.              |
| 28             | CALCIUM   | Root       | 626     | 2980     | -0.4843768813953443  |   |
| 0              | CETYL-ALCOHOL   | Root       | --      | --       |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.              |
| 24             | CHROMIUM  | Root       | 0.4     | 1.7      | -0.2211082365074478  |   |
| 2              | COBALT  | Root       | 3       | 14.2     | -0.2369968765286966  |   |
| 0              | DEGLUCOPARILLIN   | Root       | --      | --       |                      |   |
| 0              | DESGLUCORHAMNOPARILLIN  | Root       | --      | --       |                      |   |

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|----------------|-----------------------|------------|---------|----------|----------------------|--|
| 0              | EO                    | Root       | --      | 300      | -0.640661544409053   | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| 0              | EPSILON-SITOSTEROL    | Root       | --      | --       |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| 0              | FAT                   | Root       | 4410    | 21000    | -0.06268933504030412 |  |
| 0              | FIBER(CRUDE)          | Root       | --      | 100000   | -0.33350960238524374 |  |
| 0              | FIBER(DIETARY)        | Root       | --      | 380000   | -0.20125931618604387 |  |
| 0              | FURASTANOL-GLYCOSIDES | 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. |

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| 7              | GLUCOSE  | Root       | --      | --       |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                             |
| 1              | GLYCOPHYLLIN   | Plant      | --      | --       |                      | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| 6              | IRON   | Root       | 19      | 91       | -0.30944927073913947 |  |
| 65             | MAGNESIUM  | Root       | 351     | 1670     | -0.4743957334649669  |  |
| 14             | MANGANESE  | Root       | 1.2     | 5.7      | -0.47781006288724015 |  |
| 0              | NEOTIGOGENIN-3-O-BETA-D-GLUCOPYRANOSYL-(1->4)-(ALPHA-L-AMBINOPYRANOSYL-(1->6)-BETA-D-GLUCOPYRANOSIDE | Root       | --      | --       |                      | Bernardo, R. R., Pinto, A. V., Parente, J. P. 1996. Steroidal Saponins from <i>Smilax officinalis</i> . <i>Phytochemistry</i> , 43(2): 465-469.        |
| 39             | NIACIN   | Root       | --      | --       |                      |  |
| 0              | PARIGENIN  | Root       | --      | --       |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.                             |

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| 6              | PARILLIN      | Root       | --      | --       |                      |  |
| 4              | PHOSPHORUS    | Root       | 372     | 1770     | -0.3070946978802241  |  |
| 0              | POLLINASTANOL | Root       | --      | --       |                      | Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980. |
| 14             | POTASSIUM     | Root       | 2001    | 9530     | -0.45755733882532496 |  |
| 0              | PROTEIN       | Root       | 14700   | 70000    | -0.5436563102616278  |  |
| 0              | RESIN         | Root       | --      | 25000    | -0.7518713706282815  | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.     |
| 15             | RIBOFLAVIN    | Root       | --      | --       |                      |  |
| 0              | SAPONIN       | Root       | 5000    | 20000    | 0.19337292176916132  | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.     |
| 0              | SARASAPONIN   | Root       | --      | --       |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.     |

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|----------------|---|------------|---------|----------|----------------------|---|
| 2              | SARSAPARILLOSIDE  | Root       | --      | --       |                      |   |
| 1              | SARSAPONIN  | Root       | --      | --       |                      |   |
| 0              | SARSASAPOPENIN  | Root       | --      | --       |                      |   |
| 0              | SARSASAPOPENIN-3-O-BETA-D-GLUCOPYRANOSYL-(1->4)-(ALPHA-L-AMBINOPYRANOSYL-(1->6))-BETA-D-GLUCOPYRANOSIDE | Root       | --      | --       |                      | Bernardo, R. R., Pinto, A. V., Parente, J. P. 1996. Steroidal Saponins from Smilax officinalis. Phytochemistry, 43(2): 465-469. |
| 60             | SELENIUM  | Root       | 0.7     | 3.1      | -0.14192942759211227 |   |
| 4              | SILICON   | Root       | 2       | 8.8      | -0.30248027033110936 |   |
| 0              | SITOSTEROL-D-GLUCOSIDE  | Root       | --      | --       |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.      |
| 3              | SMILAGENIN  | Root       | --      | --       |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.      |
| 0              | SMILASAPONIN  | Root       | --      | --       |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.      |

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|----------------|------------------|------------|---------|----------|---------------------|--|
| 1              | SODIUM           | Root       | 4.4     | 21       | -0.5029945719162524 |  |
| 0              | SPIROSTANOLS     | 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. |
| 5              | STARCH           | Root       | 52500   | 250000   | -0.2749885194147701 |  |
| 0              | STEROID SAPONINS | Root       | 5000    | 30000    |                     |  |
| 12             | STIGMASTEROL     | Root       | --      | --       |                     | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| 0              | THIAMINE         | Root       | 0.2     | 0.9      | -0.6854497359326622 |  |
| 4              | TIN              | Root       | 4       | 18       | 0.15387660396896238 |  |
| 0              | WATER            | Root       | --      | 790000   | 0.13584730298158998 |  |
| 77             | ZINC             | Root       | 0.5     | 2.6      | -0.9450721489819633 |  |