

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Salvia officinalis*

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|------------------------|------------------|---------|----------|----------------------|------------------------------------------------------------------------------------------------------------------------|
| 77 | ZINC | Leaf | 1.0 | 5.9 | -0.4905596892021207 | -- |
| 0 | WAX | Plant | | | | -- |
| 0 | WATER | Leaf | | 843000.0 | 0.1764219759131201 | -- |
| 1 | VIRIDIFLOROL | Leaf | | | | -- |
| 1 | VIRIDIFLOROL | Essential Oil | | | | -- |
| 24 | VANILLIC-ACID | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 0 | VALERANONE | Leaf Essent. Oil | | | | -- |
| 6 | UVAOL | Plant | | | | -- |
| 89 | URSOLIC-ACID | Stem | | 200.0 | -0.8584003823146588 | -- |
| 89 | URSOLIC-ACID | Leaf | 1255.0 | 1300.0 | -0.38650833417091646 | -- |
| 89 | URSOLIC-ACID | Root | | | | -- |
| 0 | URS-12-EN-28-OIC-ACID | Leaf | | 14.0 | | -- |
| 8 | TYROSINE | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 0 | TRICYCLEN | Leaf Essent. Oil | | 3000.0 | -1.0 | -- |
| 0 | TRICYCLEN | Leaf | 15.0 | 84.0 | 1.3596086072298736 | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 0 | TRANS-SALVENE | Essential Oil | | 800.0 | | -- |
| 0 | TRANS-SABINOL | Leaf Essent. Oil | | | | -- |
| 0 | TRANS-SABINOL | Leaf | | | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 0 | TRANS-SABINENE-HYDRATE | Leaf | 10.0 | 56.0 | 1.6793837527948157 | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 0 | TRANS-SABINENE-HYDRATE | Leaf Essent. Oil | | 2000.0 | -1.0 | -- |
| 2 | TRANS-PINOCARVEOL | Leaf Essent. Oil | | | | -- |
| 0 | TRANS-OCIMENE | Plant | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|--------------------|------------------|----------|----------|-----------------------|----------------------------------------------------------------------------------------------------------------------------|
| 0 | TRANS-BETA-OCIMENE | Leaf Essent. Oil | | | | -- |
| 0 | TRANS-ALLO-OCIMENE | Plant | | | | -- |
| 0 | TRANS-3-HEXENAL | Plant | | | | -- |
| 4 | TIN | Leaf | 1.3 | 8.0 | -0.9124295958448216 | -- |
| 71 | THYMOL | Essential Oil | | | | -- |
| 71 | THYMOL | Leaf | | | | -- |
| 17 | THUJONE | Plant | 2500.0 | 13000.0 | 1.9856348958487122 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 17 | THUJONE | Leaf | 1453.0 | 12636.0 | 1.4138087279087124 | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 17 | THUJONE | Et | | 457000.0 | | -- |
| 17 | THUJONE | Essential Oil | 451300.0 | 531000.0 | 1.0 | -- |
| 0 | THUJOL-ACETATE | Essential Oil | | 1300.0 | | -- |
| 0 | THIAMINE | Leaf | 1.3 | 8.2 | 0.7312289774690919 | -- |
| 31 | THIAMIN | Leaf | 7.0 | 8.0 | -0.06349209547044472 | Father Nature's Farmacy: The aggregate of all these three-letter citations. |
| 9 | TERPINOLENE | Plant | | 112.0 | 0.2506839298132136 | -- |
| 9 | TERPINOLENE | Leaf Essent. Oil | | 2000.0 | -0.5940205732207128 | -- |
| 18 | TERPINEOL | Leaf | | | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 18 | TERPINEOL | Essential Oil | | | | -- |
| 23 | TERPINEN-4-OL | Leaf Essent. Oil | 2000.0 | 3000.0 | -0.523716551964413 | -- |
| 23 | TERPINEN-4-OL | Essential Oil | | 4500.0 | -0.5734207195469667 | -- |
| 23 | TERPINEN-4-OL | Leaf | 10.0 | 1120.0 | 0.29918716656064637 | -- |
| 0 | TANNINS | Leaf | 785.0 | 10000.0 | -1.0854284522770363 | -- |
| 35 | TANNIN | Plant | 20000.0 | 80000.0 | -0.053082229266390064 | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|----------------------------|-------------------|---------|----------|----------------------|------------------------------------------------------------------------------------------------------------------------|
| 12 | STIGMASTEROL | Leaf | 5.0 | 230.0 | 1.7806618408085848 | -- |
| 12 | STIGMASTEROL | Fruit Essent. Oil | | | | -- |
| 8 | STEARIC-ACID | Seed | | | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 8 | STEARIC-ACID | Fruit Essent. Oil | | | | -- |
| 0 | SPATHULENOL | Leaf Essent. Oil | | | | -- |
| 1 | SODIUM | Plant | 11.0 | 12.0 | -0.30341378566295807 | Father Nature's Farmacy: The aggregate of all these three-letter citations. |
| 1 | SODIUM | Leaf | 170.0 | 1080.0 | -0.4554694713688264 | -- |
| 4 | SILICON | Leaf | 0.5 | 3.1 | -0.40397146474890056 | -- |
| 1 | SERINE | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 0 | SELINA-5,11-DIENE | Plant | | | | -- |
| 0 | SELIN-11-EN-4-OL | Leaf Essent. Oil | | 54000.0 | | -- |
| 60 | SELENIUM | Leaf | | | | -- |
| 0 | SAPONIN | Plant | | | | -- |
| 3 | SALVIOL | Essential Oil | | | | -- |
| 3 | SALVIN-MONOMETHYL-ETHER | Leaf | | | | -- |
| 3 | SALVIN | Plant | | | | J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991. |
| 0 | SALVIGENIN-7-O-GLUCURONIDE | Plant | | | | J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991. |
| 0 | SALVIGENIN | Leaf | | | | Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp. |
| 0 | SALVIGENIN | Shoot | | | | -- |
| 0 | SALVIATANNIN | Leaf | | | | -- |
| 0 | SALVIANOLIC-ACID-K | Plant | | 5760.0 | | -- |
| 34 | SALICYLIC-ACID | Plant | | | | Stitt, Paul. Why George should eat broccoli. |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|------------------------|---------------------|---------|----------|----------------------|------------------------------------------------------------------------------------------------------------------------|
| 0 | SAGERINIC-ACID | Plant | | 1300.0 | | -- |
| 0 | SAGEQUINONE-METHIDE-A | Shoot | | 207.0 | | -- |
| 0 | SAGEONE | Shoot | 22.0 | 73.0 | | -- |
| 0 | SAFFICINOLIDE | Shoot | 35.0 | 57.0 | | -- |
| 0 | SACCHAROPINE | Shoot | | 1.6 | -0.7071067811865464 | -- |
| 0 | SABINYL-ACETATE | Plant | 110.0 | 616.0 | | -- |
| 5 | SABINOL | Leaf | 85.0 | 476.0 | 0.31621378249351945 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 5 | SABINENE | Leaf Essent. Oil | | 2000.0 | -0.6066700271910461 | -- |
| 5 | SABINENE | Essential Oil | | 1200.0 | -0.5875917391877868 | -- |
| 5 | SABINENE | Leaf | 10.0 | 56.0 | -0.22552904691038753 | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 0 | ROYLEANONE | Root | | 20300.0 | | -- |
| 57 | ROSMARINIC-ACID | Shoot | 2000.0 | 5800.0 | -0.5832582116490932 | -- |
| 57 | ROSMARINIC-ACID | Plant | 30000.0 | 50600.0 | 1.3515537858959146 | -- |
| 57 | ROSMARINIC-ACID | Leaf | | | | -- |
| 57 | ROSMARINIC-ACID | Inflorescence | 30000.0 | 42000.0 | 0.25850024578765574 | -- |
| 57 | ROSMARINIC-ACID | Tissue Culture | | | | -- |
| 1 | ROSMANOL-9-ETHYL-ETHER | Shoot | | 144.0 | | -- |
| 0 | ROSMANOL-7-ETHYL-ETHER | Shoot | | 144.0 | | -- |
| 5 | ROSMANOL | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 5 | ROSMANOL | Resin, Exudate, Sap | | | | -- |
| 5 | ROSMANOL | Shoot | | 11.0 | | -- |
| 1 | ROSMADIAL | Resin, Exudate, Sap | | 6000.0 | | -- |
| 15 | RIBOFLAVIN | Leaf | 0.6 | 3.6 | -0.16098657500422545 | -- |
| 0 | RESIN | Plant | 50000.0 | 60000.0 | -0.5271561735476993 | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|--------------------|-------------------|---------|----------|----------------------|------------------------------------------------------------------------------------------------------------------------------|
| 0 | PROTEIN | Seed | | 180000.0 | -0.4785438804290316 | -- |
| 0 | PROTEIN | Leaf | 18055.0 | 115000.0 | -0.9661229417649582 | -- |
| 0 | PRISTANE | Leaf | | 56.0 | | -- |
| 0 | POTASSIUM-NITRATE | Plant | | | | -- |
| 14 | POTASSIUM | Plant | 10700.0 | 11630.0 | -0.7090536999047472 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| 14 | POTASSIUM | Leaf | 3878.0 | 24700.0 | -0.24922981870565544 | -- |
| 2 | POMOLIC-ACID | Leaf | | 3.0 | -1.0 | -- |
| 0 | PLANTEOSE | Seed | | | | -- |
| 12 | PINENE | Essential Oil | | 84000.0 | -1.0 | -- |
| 12 | PINENE | Leaf | 420.0 | 2352.0 | -0.35113562909022744 | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 0 | PICROSALVIN | Leaf | | | | Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp. |
| 2 | PHYTOSTEROLS | Leaf | | 2440.0 | 0.0028854038801737 | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |
| 4 | PHOSPHORUS | Leaf | 201.0 | 1280.0 | -0.6791795625313858 | -- |
| 4 | PELLANDRENE | Essential Oil | | 20000.0 | | -- |
| 4 | PELLANDRENE | Leaf | 100.0 | 560.0 | -0.35918289789876834 | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 0 | PECTOLINAMARIGENIN | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 24 | PECTIN | Shoot | | | | -- |
| 11 | PANTOTHENIC-ACID | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 13 | PALMITIC-ACID | Fruit Essent. Oil | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Refernce Citation |
|------------------|-------------------------|-------------------|---------|----------|----------------------|------------------------------------------------------------------------------------------------------------------------|
| 13 | PALMITIC-ACID | Seed | | | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 16 | P-CYMENE | Et | | 11000.0 | -1.0 | -- |
| 16 | P-CYMENE | Leaf Essent. Oil | 7000.0 | 17700.0 | -0.5156620336360256 | -- |
| 16 | P-CYMENE | Essential Oil | 3100.0 | 5400.0 | -0.5888102139189108 | -- |
| 16 | P-CYMENE | Shoot | 15.0 | 495.0 | -0.10900236438234769 | -- |
| 0 | P-CYMEN-8-OL | Plant | | | | -- |
| 25 | P-COUMARIC-ACID | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 9 | OXALIC-ACID | Plant | | | | -- |
| 18 | OLEIC-ACID | Seed | | 35500.0 | -0.6872693677072723 | -- |
| 18 | OLEIC-ACID | Fruit Essent. Oil | | | | -- |
| 64 | OLEANOLIC-ACID | Stem | | 400.0 | 1.0 | -- |
| 64 | OLEANOLIC-ACID | Leaf | 140.0 | 786.0 | -0.36135857674665767 | -- |
| 0 | OLEAN-12-EN-28-OIC-ACID | Shoot | | 86.0 | | -- |
| 0 | O-METHYL-CARNOSIC-ACID | Shoot | | 17.0 | | -- |
| 0 | NICOTINIC-ACID-AMIDE | Plant | | 5000.0 | | -- |
| 39 | NIACIN | Leaf | 10.0 | 62.0 | -0.4318167758906651 | -- |
| 4 | NEPETIN | Plant | | | | -- |
| 0 | N-TRIACONTANE | Plant | | | | -- |
| 2 | MYRTENOL | Leaf Essent. Oil | | 2000.0 | | -- |
| 22 | MYRCENE | Essential Oil | 3700.0 | 10400.0 | -0.3077036496607786 | -- |
| 22 | MYRCENE | Leaf Essent. Oil | 9000.0 | 15700.0 | -0.3056695322092534 | -- |
| 22 | MYRCENE | Plant | 0.0 | 336.0 | -0.10695418064014987 | -- |
| 22 | MYRCENE | Et | | 8000.0 | -1.0 | -- |
| 2 | METHYL-ISOVALERATE | Plant | 7.0 | 42.0 | | -- |
| 63 | MENTHOL | Plant | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|-------------------------------|-------------------|---------|----------|----------------------|---------------------------------------------------------------------------------------------------------------------------|
| 63 | MENTHOL | Leaf | | | | -- |
| 6 | MASLINIC-ACID | Leaf | | 46.0 | -0.8872714302780136 | -- |
| 2 | MANOOL | Shoot | 556.0 | 1478.0 | | -- |
| 2 | MANOOL | Essential Oil | | | | -- |
| 14 | MANGANESE | Leaf | 0.5 | 3.0 | -0.4548985090553243 | -- |
| 15 | MALIC-ACID | Plant | | | | -- |
| 65 | MAGNESIUM | Leaf | 444.0 | 2830.0 | -0.5003307709599559 | -- |
| 0 | LUTEOLIN-7-O-GLUCURONIDE | Plant | | | | J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991. |
| 0 | LUTEOLIN-7-O-BETA-D-GLUCOSIDE | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 0 | LUTEOLIN-7-METHYL-ETHER | Plant | | | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| 0 | LUTEOLIN-7-GLYCOSIDE | Root | | | | -- |
| 0 | LUTEOLIN-7-GLYCOSIDE | Plant | | | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 7 | LUTEOLIN-7-GLUCOSIDE | Plant | | | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 78 | LUTEOLIN | Leaf | | | | -- |
| 78 | LUTEOLIN | Shoot | | | | -- |
| 0 | LINOLENIC-ACID | Seed | 42000.0 | 86750.0 | 0.9345778796061399 | -- |
| 0 | LINOLENIC-ACID | Fruit Essent. Oil | | | | -- |
| 27 | LINOLEIC-ACID | Seed | | 73000.0 | -0.29236236831545726 | -- |
| 27 | LINOLEIC-ACID | Fruit Essent. Oil | | | | -- |
| 7 | LINALYL-ACETATE | Plant | 0.0 | 6048.0 | 2.330313404492723 | -- |
| 0 | LINALOOL-ACETATE | Et | | 10000.0 | | -- |
| 0 | LINALOOL-ACETATE | Leaf Essent. Oil | 2000.0 | 34900.0 | 1.6339378873531796 | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|--------------------|------------------|---------|----------|----------------------|------------------------------------------------------------------------------------------------------------------------|
| 0 | LINALOOL-ACETATE | Essential Oil | 2000.0 | 216000.0 | 1.9636083246350857 | -- |
| 53 | LINALOOL | Et | | 11000.0 | | -- |
| 53 | LINALOOL | Leaf Essent. Oil | 4000.0 | 46600.0 | -0.40077393425160296 | -- |
| 53 | LINALOOL | Plant | 0.0 | 3500.0 | -0.1908197582561713 | -- |
| 53 | LINALOOL | Essential Oil | 1700.0 | 5000.0 | -0.560725569158283 | -- |
| 0 | LINALOL | Plant | 0.0 | 3500.0 | 0.3590366860587444 | -- |
| 60 | LIMONENE | Plant | 39.0 | 2380.0 | 0.9769131249982739 | -- |
| 60 | LIMONENE | Et | | 14000.0 | -1.0 | -- |
| 60 | LIMONENE | Essential Oil | 6600.0 | 85000.0 | -0.2478161403169539 | -- |
| 60 | LIMONENE | Leaf Essent. Oil | 10000.0 | 36400.0 | -0.517322999711508 | -- |
| 0 | LEDOL | Leaf Essent. Oil | | 3000.0 | -1.0 | -- |
| 0 | LEDENE | Plant | | | | -- |
| 1 | LABIATIC-ACID | Leaf | | | | Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp. |
| 0 | KILOCALORIES | Leaf | | 3420.0 | 0.6478563559445962 | Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp. |
| 1 | ISOROSMANOL | Shoot | | 57.0 | | -- |
| 1 | ISOCARYOPHYLLENE | Plant | | | | -- |
| 0 | ISOBORNEOL-ACETATE | Essential Oil | | 33700.0 | 1.0 | -- |
| 0 | ISOBORNEOL-ACETATE | Shoot | 168.0 | 9436.0 | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 7 | ISOBORNEOL | Essential Oil | | 3800.0 | | -- |
| 7 | ISOBORNEOL | Leaf Essent. Oil | | 28000.0 | -1.0 | -- |
| 7 | ISOBORNEOL | Shoot | 0.0 | 784.0 | 1.1758265637832626 | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 6 | IRON | Leaf | 2.4 | 15.0 | -0.8825570778618611 | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|--------------------|------------------|---------|----------|----------------------|-----------------------------------------------------------------------------------------|
| 0 | HYDROXY-ROYLEANONE | Plant | | | | -- |
| 2 | HUMULENE | Essential Oil | | 17900.0 | -1.0 | -- |
| 2 | HUMULENE | Leaf Essent. Oil | | | | -- |
| 0 | HORMINONE | Root | | | | -- |
| 7 | HISPIDULIN | Leaf | | | | -- |
| 12 | GLYCINE | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 5 | GLUTAMINE | Plant | | | | -- |
| 0 | GERMANICOL | Plant | | | | -- |
| 35 | GERANIOL | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 3 | GENKWANIN | Leaf | | | | Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp. |
| 11 | GAMMA-TERPINENE | Leaf | 15.0 | 140.0 | -0.1019870841807531 | -- |
| 11 | GAMMA-TERPINENE | Et | | 4000.0 | | -- |
| 11 | GAMMA-TERPINENE | Leaf Essent. Oil | | 3000.0 | -0.6853547696905973 | -- |
| 0 | GAMMA-MAALIENE | Plant | | | | -- |
| 0 | GAMMA-CADINENE | Plant | 2.0 | 14.0 | -0.45984857009077795 | -- |
| 0 | GAMMA-CADINENE | Leaf Essent. Oil | | | | -- |
| 62 | GALLIC-ACID | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 7 | FUMARIC-ACID | Plant | | | | -- |
| 0 | FIBER(DIETARY) | Leaf | | 289000.0 | -1.0282378241946064 | -- |
| 0 | FIBER(CRUDE) | Leaf | | 196000.0 | 1.790184111544934 | -- |
| 15 | FIBER | Leaf | | 87000.0 | -0.9217097607872751 | Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp. |
| 61 | FERULIC-ACID | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 0 | FAT | Seed | | 250000.0 | -0.08105194719463996 | -- |
| 0 | FAT | Leaf | 21666.0 | 138000.0 | 1.6247882242706593 | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|-----------------------------|---------------------|---------|----------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 17 | FARNESOL | Plant | | | | -- |
| 0 | EUGENOL-GLUCOSIDE | Leaf | | 9.0 | | -- |
| 0 | EPIROSMANOL | Shoot | | 1.0 | | -- |
| 0 | EPIROSMANOL | Resin, Exudate, Sap | | | | -- |
| 0 | EPIOLEANOLIC-ACID | Leaf | | 20.0 | | -- |
| 0 | EO | Leaf | | 20000.0 | 0.7445770670718886 | -- |
| 0 | EO | Plant | 5000.0 | 28000.0 | 1.3878217608821395 | -- |
| 51 | ELLAGIC-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. |
| 0 | DIPENTENE-O-DIPHENOLLACTONE | Leaf | | 3500.0 | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 13 | DIOSMETIN | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 0 | DELTA-TERPINEOL | Plant | | | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 0 | DELTA-TERPINEOL | Leaf Essent. Oil | | | | -- |
| 1 | DELTA-CADINOL | Leaf Essent. Oil | | | | -- |
| 9 | DELTA-CADINENE | Leaf Essent. Oil | | | | -- |
| 9 | DELTA-CADINENE | Plant | 2.0 | 14.0 | -0.4659017963716953 | -- |
| 3 | CYNAROSIDE | Leaf | | | | -- |
| 12 | COPPER | Leaf | 7.0 | 8.0 | -0.540960423661207 | USDA's Ag Handbook 8 and sequelae) |
| 2 | COBALT | Leaf | | | | -- |
| 53 | CITRAL | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 0 | CIS-SALVENE | Essential Oil | | 3200.0 | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|----------------------|-------------------|---------|----------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0 | CIS-SABINENE-HYDRATE | Leaf | | | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 0 | CIS-SABINENE-HYDRATE | Leaf Essent. Oil | | | | -- |
| 0 | CIS-BETA-TERPINEOL | Leaf Essent. Oil | | 2000.0 | | -- |
| 0 | CIS-BETA-TERPINEOL | Leaf | 10.0 | 56.0 | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 0 | CIS-BETA-OCIMENE | Leaf Essent. Oil | | | | -- |
| 0 | CIRSIMARITRIN | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 0 | CIRSILION | Plant | | | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 3 | CIRSILIOL | Plant | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| 10 | CIRSILINEOL | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 0 | CINEOLE | Shoot | 500.0 | 6075.0 | 1.0 | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 0 | CINAROSIDE | Shoot | | | | -- |
| 7 | CHRYSOERIOL | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 24 | CHROMIUM | Leaf | 0.1 | 0.3 | -0.621193465203015 | -- |
| 1 | CHOLESTEROL | Fruit | | | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 1 | CHOLESTEROL | Fruit Essent. Oil | | | | -- |
| 77 | CHLOROGENIC-ACID | Shoot | | | | -- |
| 77 | CHLOROGENIC-ACID | Inflorescence | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|-------------------------------|----------------------|----------|----------|----------------------|------------------------------------------------------------------------------------------|
| 43 | CATECHIN | Plant | | | | -- |
| 8 | CARYOPHYLLENE-OXIDE | Plant | 55.0 | 308.0 | 0.16441757054150238 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 8 | CARYOPHYLLENE-OXIDE | Essential Oil | | 13100.0 | | -- |
| 31 | CARYOPHYLLENE | Essential Oil | | 33000.0 | -0.14865660979366116 | -- |
| 31 | CARYOPHYLLENE | Leaf | 1.0 | 1430.0 | 0.1300669724943753 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 7 | CARNOSOLIC-ACID | Leaf | | 2100.0 | | -- |
| 20 | CARNOSOL | Resin, Exudate, Sap | | 36000.0 | | -- |
| 20 | CARNOSOL | Shoot | | 34.0 | -0.9354703756918734 | -- |
| 20 | CARNOSOL | Plant | | | | -- |
| 20 | CARNOSOL | Leaf | | 1660.0 | -0.5296891454855135 | -- |
| 0 | CARNOSIC-ACID-METHYL-ESTER | Resin, Exudate, Sap | | 39000.0 | | -- |
| 0 | CARNOSIC-ACID-METHYL-ESTER | Shoot | | 45.0 | | -- |
| 0 | CARNOSIC-ACID-12-METHYL-ETHER | Shoot | | | | -- |
| 2 | CARNOSIC-ACID | Resin, Exudate, Sap | | 57000.0 | | -- |
| 2 | CARNOSIC-ACID | Shoot | | 35.0 | -0.666399572485972 | -- |
| 2 | CARNOSIC-ACID | Leaf | | 12400.0 | 1.5899657743835183 | -- |
| 0 | CARBOHYDRATES | Leaf | 103620.0 | 660000.0 | 0.38292106761842515 | -- |
| 41 | CAMPHOR | Leaf | 0.0 | 9324.0 | -0.03988163889064865 | -- |
| 41 | CAMPHOR | Essential Oil | 76000.0 | 305000.0 | 0.54343127227621 | -- |
| 41 | CAMPHOR | Leaf Essent. Oil | 44000.0 | 458000.0 | 2.005169580755753 | -- |
| 41 | CAMPHOR | Pericarp Essent. Oil | | 229000.0 | | -- |
| 9 | CAMPHENE | Et | | 47000.0 | | -- |
| 9 | CAMPHENE | Essential Oil | 30200.0 | 60700.0 | 1.1306904837156095 | -- |
| 9 | CAMPHENE | Leaf Essent. Oil | 28000.0 | 66400.0 | 1.484566818920243 | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|-------------------|-------------------|----------|----------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9 | CAMPHENE | Leaf | 20.0 | 18592.0 | 6.834837822452428 | -- |
| 2 | CAMPESTEROL | Fruit | | | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 2 | CAMPESTEROL | Fruit Essent. Oil | | | | -- |
| 2 | CAMPESTEROL | Leaf | | 120.0 | -0.2035509596292973 | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |
| 28 | CALCIUM | Leaf | 1696.0 | 10800.0 | -0.5218305708813075 | -- |
| 0 | CALAMENE | Plant | 5.0 | 28.0 | 1.0 | -- |
| 102 | CAFFEIC-ACID | Shoot | | | | -- |
| 102 | CAFFEIC-ACID | Inflorescence | | | | -- |
| 4 | BORON | Leaf | 25.0 | 41.0 | -0.5517818218876644 | Betting on Boron, Unpublished draft by J. A. Duke on file at USDA, draft and papers relating to boron percentages. Includes Internat. Z. Vit. Ern. Forschung 43:1973 (boron). |
| 12 | BORNYL-ACETATE | Shoot | 5.0 | 1780.0 | 2.5481701537732313 | -- |
| 0 | BORNEOL-ACETATE | Et | | 26000.0 | | -- |
| 0 | BORNEOL-ACETATE | Essential Oil | 17900.0 | 59000.0 | -0.13264034547163733 | -- |
| 0 | BORNEOL-ACETATE | Leaf Essent. Oil | 1000.0 | 63500.0 | -0.028206534857999635 | -- |
| 35 | BORNEOL | Et | | 79000.0 | | -- |
| 35 | BORNEOL | Essential Oil | 19700.0 | 156000.0 | 0.627691236095563 | -- |
| 35 | BORNEOL | Leaf Essent. Oil | 16000.0 | 250000.0 | 2.73359024149356 | -- |
| 35 | BORNEOL | Shoot | | 7000.0 | 6.370019299829522 | -- |
| 13 | BETULIN | Leaf | | 15.0 | -0.47962706385165327 | -- |
| 0 | BETA-URSOLIC-ACID | Plant | | | | -- |
| 5 | BETA-THUJONE | Leaf Essent. Oil | 174000.0 | 356000.0 | | -- |
| 5 | BETA-THUJONE | Et | | 151000.0 | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|-----------------------------|-------------------|---------|----------|----------------------|----------------------------------------------------------------------------------------------------------------------------|
| 5 | BETA-THUJONE | Essential Oil | 52300.0 | 142500.0 | | -- |
| 5 | BETA-THUJONE | Leaf | 200.0 | 9968.0 | 2.7606909658238585 | -- |
| 6 | BETA-SITOSTEROL-D-GLUCOSIDE | Seed | | | | -- |
| 47 | BETA-SITOSTEROL | Sprout Seedling | | | | -- |
| 47 | BETA-SITOSTEROL | Root | | | | -- |
| 47 | BETA-SITOSTEROL | Leaf | 5.0 | 2449.0 | 0.24430946587626218 | -- |
| 47 | BETA-SITOSTEROL | Stem | | 1214.0 | 1.0861956164972184 | -- |
| 47 | BETA-SITOSTEROL | Fruit Essent. Oil | | | | -- |
| 13 | BETA-PINENE | Plant | 20.0 | 1540.0 | 1.2273041399455444 | -- |
| 13 | BETA-PINENE | Et | | 18000.0 | | -- |
| 13 | BETA-PINENE | Leaf Essent. Oil | 21000.0 | 55000.0 | 1.622889330955553 | -- |
| 13 | BETA-PINENE | Essential Oil | 11300.0 | 26100.0 | -0.15085215632839455 | -- |
| 3 | BETA-PHELLANDRENE | Leaf | 5.0 | 28.0 | -0.39745256523265804 | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 3 | BETA-PHELLANDRENE | Leaf Essent. Oil | | 1000.0 | -0.8347075553554938 | -- |
| 0 | BETA-OLEANOLIC-ACID | Plant | | | | -- |
| 2 | BETA-MYRCENE | Essential Oil | | | | -- |
| 0 | BETA-COPAENE | Plant | | | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 0 | BETA-CARYOPHYLLENE | Leaf | 500.0 | 760.0 | 0.03728060572503595 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | BETA-CARYOPHYLLENE | Et | | 41000.0 | | -- |
| 0 | BETA-CARYOPHYLLENE | Essential Oil | 18900.0 | 66000.0 | -0.22342680293575198 | -- |
| 0 | BETA-CARYOPHYLLENE | Leaf Essent. Oil | | 11000.0 | -0.34048091992384494 | -- |
| 53 | BETA-CAROTENE | Leaf | 6.0 | 39.0 | -0.9680962342519674 | -- |
| 0 | BETA-BOURBONENE | Leaf Essent. Oil | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|------------------------------------------|-------------------|----------|----------|----------------------|------------------------------------------------------------------------------------------------------------------------|
| 9 | BETA-AMYRIN | Plant | | | | -- |
| 9 | BETA-AMYRIN | Leaf | | 1000.0 | | -- |
| 0 | AVENASTEROL | Fruit Essent. Oil | | | | -- |
| 0 | AVENASTEROL | Fruit | | | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 2 | ASPARAGINE | Plant | | | | -- |
| 0 | ASH | Leaf | 13659.0 | 87000.0 | -0.5611877153937178 | -- |
| 112 | ASCORBIC-ACID | Leaf | 55.0 | 350.0 | -0.4114445568899699 | -- |
| 3 | AROMADENDRENE | Plant | | | | -- |
| 0 | APIGENIN-7-O-BETA-D-GLUCURONYLPYRANOSIDE | Plant | | | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 0 | APIGENIN-7-O-BETA-D-GLUCURONYLPYRANOSIDE | Shoot | | | | -- |
| 101 | APIGENIN | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 101 | APIGENIN | Shoot | | | | -- |
| 5 | ALUMINUM | Leaf | 18.0 | 115.0 | -0.6571553869693828 | -- |
| 0 | ALPHA-URSOLIC-ACID | Plant | | | | -- |
| 6 | ALPHA-THUJONE | Et | | 206000.0 | | -- |
| 6 | ALPHA-THUJONE | Essential Oil | 73300.0 | 408500.0 | | -- |
| 6 | ALPHA-THUJONE | Leaf | 200.0 | 10172.0 | 2.575761084269138 | -- |
| 6 | ALPHA-THUJONE | Leaf Essent. Oil | 200000.0 | 363300.0 | | -- |
| 0 | ALPHA-THUJENE | Essential Oil | | 1200.0 | -0.3928412484180114 | -- |
| 0 | ALPHA-THUJENE | Leaf Essent. Oil | | 13800.0 | -0.41897395872827414 | -- |
| 0 | ALPHA-THUJENE | Leaf | 0.0 | 386.0 | 3.2507273876024785 | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|-------------------------|------------------|---------|----------|---------------------|------------------------------------------------------------------------------------------------------------------------|
| 0 | ALPHA-TERPINEOL ACETATE | Et | | 9000.0 | | -- |
| 23 | ALPHA-TERPINEOL | Leaf Essent. Oil | | 1000.0 | -0.8444420280137835 | -- |
| 23 | ALPHA-TERPINEOL | Essential Oil | | 3700.0 | -0.6091856576306849 | -- |
| 23 | ALPHA-TERPINEOL | Leaf | 5.0 | 910.0 | 1.0071602347564552 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 13 | ALPHA-TERPINENE | Et | | 1000.0 | | -- |
| 13 | ALPHA-TERPINENE | Leaf Essent. Oil | | 2000.0 | -0.5761001164044018 | -- |
| 13 | ALPHA-TERPINENE | Essential Oil | | 11200.0 | -0.4634179308976379 | -- |
| 13 | ALPHA-TERPINENE | Leaf | 10.0 | 56.0 | -0.2834251845983478 | -- |
| 28 | ALPHA-PINENE | Leaf Essent. Oil | 35000.0 | 55000.0 | -0.4505855480163243 | -- |
| 28 | ALPHA-PINENE | Plant | 7.0 | 1540.0 | 0.6083638735756228 | -- |
| 28 | ALPHA-PINENE | Essential Oil | 11700.0 | 40100.0 | -0.2072109908720455 | -- |
| 28 | ALPHA-PINENE | Et | | 35000.0 | 1.0 | -- |
| 11 | ALPHA-PHELLANDRENE | Leaf | | | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 11 | ALPHA-PHELLANDRENE | Essential Oil | | | | -- |
| 11 | ALPHA-PHELLANDRENE | Leaf Essent. Oil | | | | -- |
| 0 | ALPHA-OLEANOLIC-ACID | Plant | | | | -- |
| 0 | ALPHA-MUUROLENE | Leaf Essent. Oil | | | | -- |
| 2 | ALPHA-HUMULENE | Leaf | 110.0 | 616.0 | 0.5782902434464878 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 2 | ALPHA-HUMULENE | Et | | 21000.0 | | -- |
| 2 | ALPHA-HUMULENE | Essential Oil | | 19300.0 | -0.306582227205239 | -- |
| 2 | ALPHA-HUMULENE | Leaf Essent. Oil | | 29000.0 | 0.25622083823143005 | -- |
| 0 | ALPHA-GURJUNENE | Plant | | | | -- |
| 0 | ALPHA-COROCALENE | Plant | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|-----------------------------------|------------------|---------|----------|---------------------|---------------------------------------------------------------------------------------------------------------------------|
| 0 | ALPHA-COPAENE | Leaf Essent. Oil | | | | -- |
| 3 | ALPHA-CEDRENE | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 3 | ALPHA-CEDRENE | Leaf Essent. Oil | | | | -- |
| 3 | ALPHA-CADINOL | Leaf Essent. Oil | | | | -- |
| 0 | ALPHA-BETA-THUJONE | Essential Oil | | 347000.0 | | -- |
| 10 | ALPHA-AMYRIN | Plant | | | | -- |
| 10 | ALPHA-AMYRIN | Leaf | | 1800.0 | | -- |
| 0 | ALLO-AROMADENDRENE | Essential Oil | | 1800.0 | -1.0 | -- |
| 0 | ALLO-AROMADENDRENE | Leaf | 15.0 | 84.0 | -0.1830077223581628 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 3 | ALANINE | Plant | | | | Stitt, Paul. Why George should eat broccoli. |
| 0 | ACETO-HYDROXY-ROYLEANONE | Plant | | | | -- |
| 0 | 7-O-ACETYL-HORMINONE | Root | | | | -- |
| 0 | 7-METHOXY-ROSMANOL | Shoot | | 2.0 | -1.0 | -- |
| 0 | 6-METHOXYLUTEOLIN-7-METHYL-ETHER | Plant | | | | -- |
| 0 | 6-METHOXYLUTEOLIN-7-METHYL-ETHER | Leaf | | | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| 0 | 6-METHOXYLUTEOLIN | Plant | | | | -- |
| 0 | 6-METHOXYGENKWANIN-7-METHYL-ETHER | Plant | | | | -- |
| 0 | 6-METHOXY-GENKWANIN | Plant | | | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| 0 | 6,7-DIMETHOXY-ROSMANOL | Shoot | | 2.0 | | -- |
| 0 | 5-METHOXY-SALVIGENIN | Leaf | | | | -- |
| 2 | 3-ISOTHUJONE | Leaf | | | | -- |
| 0 | 3-EPIOLEANOLIC-ACID | Leaf | | 1.4 | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|---------------------------------------------------|------------------|---------|----------|--------------------|----------------------------------------------------------------------------------------------------------------------------|
| 0 | 3-CARENE | Plant | | | | -- |
| 0 | 2-METHYL-3-METHYLENE-HEPT-TRANS-5-ENE | Leaf Essent. Oil | | 1000.0 | | -- |
| 0 | 2-METHYL-3-METHYLENE-HEPT-TRANS-5-ENE | Leaf | 5.0 | 28.0 | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 0 | 2-METHYL-3-METHYLENE-HEPT-CIS-5-ENE | Leaf Essent. Oil | | 8000.0 | | -- |
| 0 | 2-METHYL-3-METHYLENE-HEPT-CIS-5-ENE | Leaf | 40.0 | 224.0 | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 0 | 2-METHYL-3-METHYLENE-5-HEPTANE | Leaf | 50.0 | 280.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | 2-AMINO-ADIPIC-ACID | Shoot | | 1.6 | | -- |
| 0 | 2-ALPHA-HYDROXY-3-OXO-OLEAN-12-EN-28-OIC-ACID | Leaf | | 17.0 | | -- |
| 0 | 2-ALPHA,3-ALPHA-DIHYDROXY-OLEAN-12-EN-28-OIC-ACID | Leaf | | | | -- |
| 0 | 1-OCTEN-3-OL | Plant | | | | -- |
| 0 | 1,8-CINEOLE-SYNTHEASE | Leaf | | | | -- |
| 67 | 1,8-CINEOLE | Plant | 390.0 | 6288.0 | 1.2033227605211898 | -- |
| 0 | 1,8-CINEOL | Leaf | | | | -- |
| 0 | 1,8-CINEOL | Et | | 50000.0 | | -- |
| 0 | 1,8-CINEOL | Essential Oil | 73000.0 | 217000.0 | 1.9052102662799937 | -- |
| 0 | 1,8-CINEOL | Leaf Essent. Oil | 91000.0 | 357000.0 | 1.9399550242552641 | -- |
| 0 | (-)-THUJONE | Plant | 2500.0 | 13000.0 | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 0 | (-)-THUJONE | Essential Oil | | | | -- |