

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Angelica archangelica*

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Refernce Citation |
|------------------|---|-------------------|---------|----------|--------|--|
| 0 | (+)-ALPHA-COPAENE | Seed Essent. Oil | | | | -- |
| 0 | (+)-ALPHA-CURCUMENE | Root Essent. Oil | | | | -- |
| 0 | (+)-CUPARENE | Root | | | | -- |
| 0 | (+)-LIMONENE | Root | | | | -- |
| 0 | (+)-OXYPEUCEDANIN | Root | | | | -- |
| 0 | 1,1-DIETHOXYHEXANE | Root Essent. Oil | | | | -- |
| 0 | 1,1-DIETHOXYHEXANE | Root | | | | -- |
| 0 | 1,1-DIETHOXYOCTANE | Root | | | | -- |
| 0 | 1,1-DIETHOXYOCTANE | Root Essent. Oil | | | | -- |
| 0 | 1,8-CINEOL | Fruit Essent. Oil | | 538000.0 | 1.0 | -- |
| 0 | 1-O-BETA-D-GLUCOPYRANOSYL-(2S,3P)-3-HYDROXY-MARMESINE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | 12-METHYL-13-TRIDECANOLIDE | Root | 1.0 | 12.0 | | -- |
| 0 | 12-METHYL-OMEGA-TRIDECANOLIDE | Root | | | | -- |
| 0 | 12-METHYL-OMEGA-TRIDECANOLIDE | Root Essent. Oil | | | | -- |
| 0 | 13-TRIDECANOLIDE | Root | 15.0 | 50.0 | | -- |
| 0 | 15-HYDROXPENTADECANOIC ACID | Root | | | | Wealth of India. |
| 0 | 15-PENTADECANOLIDE | Root | 15.0 | 75.0 | | -- |
| 0 | 17-HEPTADECANOLIDE | Root | 2.0 | 20.0 | | -- |
| 1 | 2'-ANGELOYL-3'-ISOVALERYL-VAGINATE | Root | | | | Phytochem. Anal. 3(1):42-48. 1992 |
| 0 | 2'-BETA-D-GLUCOPYRANOSYLOXY-MARMESINE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | 2-DECANONE | Root | | | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | 2-NITRO-1,5-P-MENTHADIENE | Plant | | | | J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991. |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|---|------------------|---------|----------|--------|---|
| 2 | 2-NONANONE | Root | | 1.0 | | -- |
| 0 | 2-PENTYL-FURAN | Root | 0.0 | 4.0 | 1.0 | -- |
| 0 | 4,4,6-TRIMETHYLCYCLOHEX-2-EN-1-ONE | Root | | | | -- |
| 0 | 4-ETHOXY-1-P-MENTHENE | Root | | 3.0 | | -- |
| 0 | 4-METHOXY-7-HYDROXYPSORALEN | Seed | | | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| 0 | 4-METHOXY-7H-FURO(3,2-G)(1)BENZOPYRAN-7-ONE | Root | 1.0 | 225.0 | | -- |
| 0 | 5,7-DIHYDROXY-2-METHYL-CHROMONE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | 5-ISOPROPYLBICYCLO-(3,1.0)-HEXAN-2-ONE | Plant | 10.0 | 30.0 | | -- |
| 0 | 5-METHOXY-GAMMA-HYDROXYPSORALEN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 10 | 5-METHOXY-PSORALEN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 10 | 5-METHOXY-PSORALEN | Fruit | | | | -- |
| 0 | 5-METHYL-ANGELICIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | 5-UNDECEN-3-YNE | Root | 2.0 | 15.0 | | -- |
| 0 | 7-ISOPROPYL-5-METHYL-BICYCLO(2.2.2)-OCT-5-EN-2-ONE | Root Essent. Oil | | 100.0 | | -- |
| 0 | 7-METHOXY-8-(3-METHYL-2-BUTENYL)-2H-1-BENZOPYRAN-2-ONE | Root | 50.0 | 2000.0 | | -- |
| 1 | 8-(2-(3-METHYLBUTOXY)-3-HYDROXY-3-METHYLBUTOXY)PSORALEN | Root | | | | Phytochem. Anal. 3(1):42-48. 1992 |
| 0 | 8-HYDROXY-5-METHOXY-PSORALEN | Fruit | | 62.0 | | -- |
| 0 | 8-HYDROXY-5-METHOXY-PSORALEN | Seed | | | | -- |
| 0 | 8-HYDROXY-5-METHOXY-PSORALEN | Plant | | | | -- |
| 21 | 8-METHOXY-PSORALEN | Plant | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|---------------------------|------------------|---------|----------|--------------------|--|
| 6 | ACETALDEHYDE | Seed | | | | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| 1 | ACONITIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 28 | ADENOSINE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 28 | ADENOSINE | Root | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 3 | ALANINE | Leaf | | | | -- |
| 0 | ALPHA-ALKYL-FUROCOUMARIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 10 | ALPHA-AMYRIN | Plant | | | | J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991. |
| 2 | ALPHA-AMYRIN-ACETATE | Fruit | | 26.0 | | -- |
| 20 | ALPHA-BISABOLOL | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | ALPHA-CARYOPHYLLENE | Root | | | | -- |
| 0 | ALPHA-COPAEN-11-OL | Root | 15.0 | 45.0 | | -- |
| 0 | ALPHA-COPAEN-8-OL | Root | | | | -- |
| 0 | ALPHA-COPAENE | Root Essent. Oil | | | | -- |
| 0 | ALPHA-COPAENE | Root | 10.0 | 190.0 | | -- |
| 0 | ALPHA-COPAENE-11-OL | Root Essent. Oil | | | | -- |
| 0 | ALPHA-COPAENE-8-OL | Root | 6.0 | 18.0 | | -- |
| 0 | ALPHA-CUBEBENE | Root | 0.0 | 5.0 | | -- |
| 2 | ALPHA-HUMULENE | Root Essent. Oil | | | | -- |
| 2 | ALPHA-HUMULENE | Root | 18.0 | 50.0 | 1.4138559108869015 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 2 | ALPHA-METHYL-BUTYRIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | ALPHA-MUUROLENE | Root | 10.0 | 120.0 | | -- |
| 0 | ALPHA-MUUROLENE | Root Essent. Oil | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|-------------------------|------------------|---------|----------|----------------------|--|
| 11 | ALPHA-PHELLANDRENE | Root Essent. Oil | | 225000.0 | | -- |
| 11 | ALPHA-PHELLANDRENE | Fruit | | | | -- |
| 11 | ALPHA-PHELLANDRENE | Root | | | | -- |
| 11 | ALPHA-PHELLANDRENE | Seed Essent. Oil | | | | -- |
| 11 | ALPHA-PHELLANDRENE | Leaf Essent. Oil | | 678000.0 | 1.751978121762097 | -- |
| 0 | ALPHA-PHELLANDRENE-8-OL | Root Essent. Oil | | | | -- |
| 0 | ALPHA-PHELLANDRENE-8-OL | Root | 15.0 | 40.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 28 | ALPHA-PINENE | Fruit | | | | -- |
| 28 | ALPHA-PINENE | Seed Essent. Oil | | 149000.0 | 0.28611774259215744 | -- |
| 28 | ALPHA-PINENE | Root Essent. Oil | | | | -- |
| 28 | ALPHA-PINENE | Seed | 170.0 | 1500.0 | -0.34027084756770226 | -- |
| 28 | ALPHA-PINENE | Root | 35.0 | 5890.0 | 2.1989183610646146 | -- |
| 13 | ALPHA-TERPINENE | Root Essent. Oil | | | | -- |
| 13 | ALPHA-TERPINENE | Fruit | | | | -- |
| 13 | ALPHA-TERPINENE | Root | 0.0 | 6.0 | -0.6602197185589468 | -- |
| 23 | ALPHA-TERPINEOL | Root | 0.0 | 12.0 | -0.5636245828350195 | -- |
| 23 | ALPHA-TERPINEOL | Plant | | | | -- |
| 0 | ALPHA-TERPINOLENE | Root | | | | -- |
| 0 | ALPHA-THUJENE | Root | 1.0 | 13.0 | | -- |
| 0 | ALPHA-THUJENE | Root Essent. Oil | | | | -- |
| 0 | ANGALCIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 1 | ANGELIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | ANGELICAIN | Root | | | | -- |
| 0 | ANGELICAIN | Plant | | | | -- |
| 17 | ANGELICIN | Seed | | | | -- |
| 17 | ANGELICIN | Root Essent. Oil | | 35000.0 | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|--------------------------|------------------|---------|----------|---------------------|--|
| 17 | ANGELICIN | Root | | | | -- |
| 0 | APTERIN | Root | | | | -- |
| 0 | APTERIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 3 | AR-CURCUMENE | Root | 0.0 | 6.0 | -1.0 | -- |
| 0 | ARACHIDIC-ACID | Fruit | | | | -- |
| 0 | ARACHIDIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | ARCHANGELENONE | Root | | 50.0 | | -- |
| 0 | ARCHANGELENONE | Plant | | | | -- |
| 0 | ARCHANGELICAIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 2 | ARCHANGELICIN | Root | | | | -- |
| 2 | ARCHANGELICIN | Plant | | | | -- |
| 2 | ARCHANGELICIN | Shoot | | | | -- |
| 2 | ARCHANGELICIN | Fruit | | | | -- |
| 0 | ARCHANGELIN | Root | | 2000.0 | | -- |
| 2 | ASPARAGINE | Leaf | | | | -- |
| 3 | ASPARTIC-ACID | Leaf | | | | -- |
| 0 | AZULENOGENIC-HYDROCARBON | Seed | 930.0 | 5890.0 | | Wealth of India. |
| 1 | BEHENIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 26 | BERGAPTEN | Shoot | | | | -- |
| 26 | BERGAPTEN | Seed | 2.0 | 6800.0 | 1.5453742965682007 | -- |
| 26 | BERGAPTEN | Root Essent. Oil | | 88000.0 | | -- |
| 26 | BERGAPTEN | Root | | | | -- |
| 26 | BERGAPTEN | Plant | | | | -- |
| 26 | BERGAPTEN | Fruit | 48.0 | 1300.0 | | -- |
| 4 | BETA-AMYRIN-ACETATE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 6 | BETA-BISABOLENE | Root | 8.0 | 72.0 | -1.2022170084503725 | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|--------------------|------------------|---------|----------|--------------------|--|
| 6 | BETA-BISABOLENE | Root Essent. Oil | | | | -- |
| 0 | BETA-CARYOPHYLLENE | Root Essent. Oil | | 110000.0 | 1.0368391024927353 | -- |
| 0 | BETA-CARYOPHYLLENE | Seed | | | | 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 | BETA-CEDRENE | Root | | | | -- |
| 0 | BETA-COPAENE | Root | 8.0 | 20.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | BETA-COPAENE | Root Essent. Oil | | | | -- |
| 0 | BETA-CYMOL | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 5 | BETA-ELEMENE | Root Essent. Oil | | | | -- |
| 5 | BETA-ELEMENE | Root | 0.0 | 90.0 | -1.0 | -- |
| 13 | BETA-EUDES MOL | Root Essent. Oil | | | | -- |
| 13 | BETA-EUDES MOL | Root | 1.0 | 21.0 | 1.0 | -- |
| 0 | BETA-FARNESENE | Root Essent. Oil | | | | -- |
| 0 | BETA-FARNESENE | Root | 5.0 | 15.0 | -0.584230956900959 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | BETA-HIMACHALENE | Root | 0.0 | 12.0 | | -- |
| 2 | BETA-MYRCENE | Root | | | | -- |
| 3 | BETA-PHELLANDRENE | Root | 50.0 | 5320.0 | 1.0 | -- |
| 3 | BETA-PHELLANDRENE | Fruit | | | | -- |
| 3 | BETA-PHELLANDRENE | Root Essent. Oil | | | | -- |
| 13 | BETA-PINENE | Root | 2.0 | 2400.0 | 2.065213478268315 | -- |
| 13 | BETA-PINENE | Fruit | | | | -- |
| 13 | BETA-PINENE | Seed Essent. Oil | | | | -- |
| 13 | BETA-PINENE | Root Essent. Oil | | | | -- |
| 3 | BETA-SELINENE | Root | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|--------------------------------|------------------|---------|----------|---------------------|--|
| 5 | BETA-SESQUIPELLANDRENE | Root | 0.0 | 7.0 | -1.0 | -- |
| 47 | BETA-SITOSTEROL | Plant | | | | -- |
| 47 | BETA-SITOSTEROL | Seed | 1.5 | 9.5 | -0.627327401886418 | -- |
| 47 | BETA-SITOSTEROL | Fruit | | | | -- |
| 0 | BETA-SITOSTEROL-PALMITATE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | BETA-SITOSTERYL-ARACHINATE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | BETA-THUJENE | Seed Essent. Oil | | 870000.0 | | -- |
| 0 | BETA-THUJENE | Root | 6900.0 | 8700.0 | | -- |
| 0 | BICYCLOGERMACRENE | Root | | | | -- |
| 2 | BISABOLANGELONE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | BISABOLENE | Root Essent. Oil | | | | -- |
| 0 | BISABOLOL | Root Essent. Oil | | | | -- |
| 35 | BORNEOL | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 35 | BORNEOL | Root | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 35 | BORNEOL | Root Essent. Oil | | | | -- |
| 0 | BORNEOL-ACETATE | Root Essent. Oil | | | | -- |
| 0 | BORNEOL-ACETATE | Root | | | | -- |
| 0 | BORNEOL-ISOVALERATE | Root Essent. Oil | | | | -- |
| 12 | BORNYL-ACETATE | Root | 25.0 | 75.0 | -0.5747231818271519 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | BORNYL-ISOVALERATE | Root | 0.0 | 7.0 | -1.0 | -- |
| 5 | BYAKANGELICIN | Root | | 13.0 | | -- |
| 0 | BYAKANGELICIN-2'-O-ISOVALERATE | Root | | 2.0 | | -- |
| 1 | BYAKANGELICIN-ANGELATE | Root | | 8.0 | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|---------------------------|------------------|---------|----------|---------------------|---|
| 0 | BYAKANGELICOL | Root | | | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| 102 | CAFFEIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | CAMPESELOL | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | CAMPESENIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | CAMPESIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 9 | CAMPHENE | Fruit | | | | -- |
| 9 | CAMPHENE | Root Essent. Oil | | | | -- |
| 9 | CAMPHENE | Root | 2.0 | 130.0 | 1.4108316199577506 | -- |
| 0 | CAR-3-ENE | Root | | | | -- |
| 0 | CAR-3-ENE | Root Essent. Oil | | | | -- |
| 19 | CARVONE | Root | 0.0 | 2.0 | -0.7714223871650727 | -- |
| 31 | CARYOPHYLLENE | Root Essent. Oil | | | | -- |
| 31 | CARYOPHYLLENE | Root | 8.0 | 20.0 | -0.6816330830044597 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 3 | CEDROL | Root | | | | -- |
| 77 | CHLOROGENIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | CHRYSANTHENOL-ACETATE | Root | | | | -- |
| 0 | CHRYSANTHENYL-ACETATE-I | Root | 0.0 | 7.0 | | -- |
| 0 | CHRYSANTHENYL-ACETATE-II | Root | 1.0 | 95.0 | | -- |
| 0 | CIS-1-ETHOXY-2-P-MENTHENE | Root | | 16.0 | | -- |
| 0 | CIS-3-ETHOXY-1-P-MENTHENE | Root | | 8.0 | | -- |
| 0 | CIS-4-ETHOXY-2-PINENE | Root | | 5.0 | | -- |
| 0 | CIS-4-ETHOXY-PIN-2-ENE | Root Essent. Oil | | | | -- |
| 0 | CIS-4-ETHOXY-THUJANE | Root Essent. Oil | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|----------------------------------|------------------|---------|----------|--------|--|
| 0 | CIS-4-ETHOXY-THUJANE | Root | | 6.0 | | -- |
| 0 | CIS-6-NITRO-1(7),2-P-MENTHADIENE | Plant | | | | J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991. |
| 0 | CIS-ALPHA-COPAENE-8-OL | Plant | | | | -- |
| 0 | CIS-BETA-FARNESENE | Root | | | | -- |
| 0 | CIS-CARVEOL-ACETATE | Root Essent. Oil | | | | -- |
| 0 | CIS-CARVYL-ACETATE | Root | | 2.0 | | -- |
| 3 | CIS-OCIMENE | Root Essent. Oil | | | | -- |
| 3 | CIS-OCIMENE | Root | 4.0 | 125.0 | | -- |
| 0 | CIS-P-MENTH-2-EN-1-OL | Root | 0.0 | 62.0 | | -- |
| 0 | CIS-PIPERITOL | Root | 0.0 | 8.0 | | -- |
| 0 | CIS-PIPERITOL | Root Essent. Oil | | | | -- |
| 0 | CIS-SABINENE-HYDRATE | Root | | | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | CIS-SABINENE-HYDRATE | Root Essent. Oil | | | | -- |
| 0 | CIS-THUJENOL | Root | | | | -- |
| 0 | CIS-VERBENOL | Root Essent. Oil | | | | -- |
| 0 | CIS-VERBENOL | Root | 3.0 | 10.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 2 | CONIFERIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 2 | CONIFERIN | Root | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | CRYPTONE | Root | 16.0 | 50.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | CRYPTONE | Root Essent. Oil | | | | -- |
| 0 | CUMINYL-ALCOHOL | Root | | 2.0 | | -- |
| 0 | CUMINYL-ALCOHOL | Root Essent. Oil | | | | -- |
| 0 | CUMINYL-ALDEHYDE | Root Essent. Oil | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|--------------------------------|------------------|---------|----------|----------------------|--|
| 1 | CUPARENE | Root Essent. Oil | | | | -- |
| 1 | CUPARENE | Root | 3.0 | 10.0 | 1.0 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | CYMEN-8-OL | Root | 6.0 | 18.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | CYMENE | Root | | | | -- |
| 0 | D-ALPHA-PHELLANDRENE | Root | 15.0 | 2660.0 | | -- |
| 0 | D-ALPHA-PHELLANDRENE | Seed | 1140.0 | 7220.0 | -1.0 | Wealth of India. |
| 0 | DECA-TRANS-2,TRANS-4-DIEN-1-AL | Root | | | | -- |
| 0 | DECAN-2-ONE | Root Essent. Oil | | | | -- |
| 0 | DEHYDROASCORBIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | DEHYDRODEOXYANGELICAN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 8 | DELTA-3-CARENE | Root | 30.0 | 505.0 | 1.4140772728836788 | -- |
| 9 | DELTA-CADINENE | Root | 1.0 | 101.0 | 1.4139785716108804 | -- |
| 9 | DELTA-CADINENE | Root Essent. Oil | | | | -- |
| 0 | DELTA-ELEMENE | Root | | | | -- |
| 0 | DELTOIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 2 | DIACETYL | Root | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | DIHYDROCARVONE | Seed | 160.0 | 1025.0 | 0.004692483254163068 | -- |
| 0 | DIHYDROCARVONE | Plant | | | | -- |
| 0 | DIHYDROEUDESMOL | Root | | | | -- |
| 0 | DIHYDROFURANOCOUMARIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | DIHYDROFUROCOUMARIN-GLYCOSIDE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | DIPRENYL-NARINGENIN | Root | | | | Wealth of India. |
| 0 | EICOSANE | Root | 0.0 | 5.0 | -1.0 | -- |
| 0 | EICOSENOIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|----------------------|------------------|----------|----------|----------------------|--|
| 0 | EICOSENOIC-ACID | Fruit | | | | -- |
| 2 | ELEMOL | Root Essent. Oil | | | | -- |
| 2 | ELEMOL | Root | 0.0 | 18.0 | | -- |
| 0 | EO | Seed | 2000.0 | 38000.0 | -0.07010761007370915 | -- |
| 0 | EO | Root | 1000.0 | 19000.0 | 0.24015740661431922 | -- |
| 5 | ERGOSTEROL | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 5 | ERGOSTEROL | Fruit | | | | -- |
| 24 | ETHANOL | Root | | | | -- |
| 0 | ETHYL-CAPRATE | Root | | | | -- |
| 0 | ETHYL-CAPRATE | Root Essent. Oil | | | | -- |
| 1 | ETHYL-LAURATE | Root | | | | -- |
| 0 | ETHYL-LINOLEATE | Root | | 8.0 | | -- |
| 0 | ETHYL-LINOLENATE | Root | | | | -- |
| 1 | ETHYL-MYRISTATE | Root Essent. Oil | | | | -- |
| 1 | ETHYL-MYRISTATE | Root | | | | -- |
| 1 | ETHYL-OLEATE | Root | | | | -- |
| 1 | ETHYL-PALMITATE | Root | | 10.0 | | -- |
| 0 | ETHYL-PENTADECANOATE | Root Essent. Oil | | | | -- |
| 0 | ETHYL-PENTADECANOATE | Root | | | | -- |
| 0 | ETHYL-STEARATE | Root | | | | -- |
| 0 | FAT | Seed | 189000.0 | 203000.0 | -0.3286177590566424 | -- |
| 6 | FENCHONE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 6 | FENCHONE | Root Essent. Oil | | | | -- |
| 8 | FRUCTOSE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 7 | FUMARIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | FURANCHROMONE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|-----------------------------|------------------|---------|----------|--------------------|--|
| 0 | FURANOCOUMARIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 6 | FURFURAL | Root | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | GAMMA-CADINENE | Root | 2.0 | 14.0 | 1.0 | -- |
| 0 | GAMMA-CADINENE | Plant | | | | -- |
| 0 | GAMMA-CARYOPHYLLENE | Root | 0.0 | 6.0 | | -- |
| 0 | GAMMA-MUUROLENE | Root Essent. Oil | | | | -- |
| 0 | GAMMA-MUUROLENE | Root | 1.0 | 4.0 | -1.0 | -- |
| 11 | GAMMA-TERPINENE | Root Essent. Oil | | | | -- |
| 11 | GAMMA-TERPINENE | Root | 1.0 | 12.0 | -0.802453903453894 | -- |
| 0 | GAMMA-TERPINEOL | Root | | | | -- |
| 2 | GERMACRENE-D | Root | 2.0 | 26.0 | 1.0 | -- |
| 2 | GERMACRENE-D | Root Essent. Oil | | | | -- |
| 0 | GERMANIUM | Root | | 146.0 | -1.0 | -- |
| 7 | GLUCOSE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 5 | GLUTAMINE | Leaf | | | | -- |
| 0 | HEPTADECADIENOLIDE | Root Essent. Oil | | 10000.0 | | -- |
| 0 | HEPTADECAN-1-OL-ACETATE | Root | | | | -- |
| 0 | HEPTADECANE | Root | 0.0 | 7.0 | | -- |
| 0 | HEPTADECANOLIDE | Root Essent. Oil | | | | -- |
| 0 | HEPTADECANOLIDE | Root | | | | -- |
| 0 | HEPTYL-ISOVALERATE | Root Essent. Oil | | | | -- |
| 0 | HEPTYL-ISOVALERATE | Root | | | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | HERACLENOL-2'-O-ISOVALERATE | Root | | 13.0 | | -- |
| 0 | HERACLENOL-2'-O-SENECIOATE | Root | | 1.0 | | -- |
| 0 | HEXADECAN-1-OL | Root | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|--------------------------|------------------|---------|----------|---------------------|---|
| 0 | HEXADECANE | Root | 0.0 | 7.0 | 0.9999999999999999 | -- |
| 0 | HEXYL-METHYL-PHTHALATE | Seed | 3600.0 | 13680.0 | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| 0 | HUMULENE-MONOXIDE | Root Essent. Oil | | | | -- |
| 0 | HUMULENE-MONOXIDE | Root | 13.0 | 40.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | HYDROXYMYRISTIC-ACID | Seed | | | | -- |
| 0 | HYDROXPENTADECANOIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 25 | IMPERATORIN | Shoot | | | | -- |
| 25 | IMPERATORIN | Plant | | | | -- |
| 25 | IMPERATORIN | Fruit | | 66.0 | 1.940524885628408 | -- |
| 25 | IMPERATORIN | Seed | 50.0 | 5000.0 | 0.20180777184913837 | -- |
| 25 | IMPERATORIN | Root | | | | -- |
| 0 | ISELIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | ISOAMYL-ISOVALERATE | Root Essent. Oil | | | | -- |
| 0 | ISOAMYL-ISOVALERATE | Root | | 2.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | ISOBERGAPTEN | Fruit | | | | -- |
| 0 | ISOBERGAPTEN | Root Essent. Oil | | 88000.0 | | -- |
| 0 | ISOBERGAPTIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | ISOBERGAPTOL | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | ISOCOUMARIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 8 | ISOIMPERATORIN | Root | | | | -- |
| 8 | ISOIMPERATORIN | Plant | | | | -- |
| 8 | ISOIMPERATORIN | Shoot | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Refernce Citation |
|------------------|----------------------------|------------------|---------|----------|----------------------|--|
| 8 | ISOIMPERATORIN | Seed | 12.0 | 75.0 | 1.0 | Wealth of India. |
| 8 | ISOIMPERATORIN | Fruit | | 4.0 | -0.9645619455667129 | -- |
| 3 | ISOLEUCINE | Leaf | | | | -- |
| 15 | ISOPIMPINELLIN | Root | | | | -- |
| 15 | ISOPIMPINELLIN | Root Essent. Oil | | | | -- |
| 15 | ISOPIMPINELLIN | Fruit | | 18.0 | 1.0 | -- |
| 15 | ISOPIMPINELLIN | Plant | | | | -- |
| 0 | KVANNIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 7 | LAURIC-ACID | Fruit | | | | -- |
| 1 | LAURIC-ACID-ETHYL-ESTER | Root Essent. Oil | | | | -- |
| 7 | LIGUSTILIDE | Root | | | | -- |
| 7 | LIGUSTILIDE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 60 | LIMONENE | Root Essent. Oil | | 227000.0 | 1.5228275750660336 | -- |
| 60 | LIMONENE | Root | 0.0 | 1320.0 | 1.7252265137628358 | -- |
| 0 | LIMONENE-1,2-OXIDE | Plant | 0.0 | 15.0 | | -- |
| 0 | LINALOL | Root | | 1.0 | -0.7415836394549143 | -- |
| 53 | LINALOOL | Root | | 10.0 | -0.41637162119267096 | -- |
| 53 | LINALOOL | Root Essent. Oil | | | | -- |
| 27 | LINOLEIC-ACID | Fruit | | | | -- |
| 0 | LINOLEIC-ACID-ETHYL-ESTER | Root Essent. Oil | | | | -- |
| 0 | LINOLENIC-ACID-ETHYL-ESTER | Root Essent. Oil | | | | -- |
| 2 | LUPEOL-ACETATE | Fruit | | 40.0 | | -- |
| 2 | LUPEOL-ACETATE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 15 | LUTEIN | Leaf | | | | -- |
| 0 | M-CYMEN-8-OL | Root | | 9.0 | | -- |
| 0 | M-CYMENE-8-OL | Root Essent. Oil | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|--------------------------|------------------|---------|----------|--------------------|---|
| 15 | MALIC-ACID | Plant | | | | -- |
| 15 | MALIC-ACID | Root | | | | -- |
| 1 | MALONIC-ACID | Root | | | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| 0 | MARMESIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | MARMESININE | Plant | | | | -- |
| 0 | MARMEZIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 2 | METHANOL | Root | | | | -- |
| 0 | METHYL-ETHYL-ACETIC-ACID | Root | | | | -- |
| 0 | METHYL-ETHYL-ACETIC-ACID | Seed | | | | -- |
| 22 | MYRCENE | Root Essent. Oil | | | | -- |
| 22 | MYRCENE | Root | 7.0 | 380.0 | 1.4075966148229513 | -- |
| 22 | MYRCENE | Fruit | | | | -- |
| 22 | MYRCENE | Seed Essent. Oil | | | | -- |
| 6 | MYRISTIC-ACID | Fruit | | | | -- |
| 0 | NONADECANE | Root | 0.0 | 5.0 | 1.0 | -- |
| 0 | NONAN-1-AL | Root Essent. Oil | | | | -- |
| 0 | NONAN-2-ONE | Root Essent. Oil | | | | -- |
| 0 | NONANAL | Root | | | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | O-CYMENE | Root Essent. Oil | | | | -- |
| 0 | O-CYMENE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | OCTADEC-9-EN-18-OLIDE | Root Essent. Oil | | 20000.0 | | -- |
| 0 | OCTADECAN-1-OL | Root | | | | -- |
| 0 | OCTADECANE | Root | 0.0 | 5.0 | | -- |
| 0 | OCTAN-1-AL | Root Essent. Oil | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|------------------------|------------------|---------|----------|---------------------|---|
| 0 | OCTANAL | Root | | 1.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 2 | OCTYL-ISOVALERATE | Root Essent. Oil | | | | -- |
| 2 | OCTYL-ISOVALERATE | Root | | | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 18 | OLEIC-ACID | Seed | | 133000.0 | 0.11423787911448594 | -- |
| 1 | OLEIC-ACID-ETHYL-ESTER | Root Essent. Oil | | | | -- |
| 0 | OROSELONE | Plant | | | | -- |
| 0 | OROSELONE | Root Essent. Oil | | 25000.0 | | -- |
| 0 | OSTHENOL | Shoot | | | | -- |
| 0 | OSTHENOL | Fruit | | | | -- |
| 0 | OSTHENOL | Root | | 115.0 | | -- |
| 0 | OSTHOLE | Root | | | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| 15 | OSTHOL | Fruit | | | | -- |
| 15 | OSTHOL | Root Essent. Oil | | 530000.0 | | -- |
| 15 | OSTHOL | Root | | 2000.0 | | -- |
| 4 | OSTHOLE | Root | | | | -- |
| 1 | OSTRUTHOL | Seed | 9.0 | 57.0 | | Wealth of India. |
| 1 | OSTRUTHOL | Root | | 2000.0 | | -- |
| 0 | OSTRUTOL | Plant | | | | -- |
| 9 | OXALIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 6 | OXYPEUCEDANIN | Shoot | | | | -- |
| 6 | OXYPEUCEDANIN | Fruit | | | | -- |
| 6 | OXYPEUCEDANIN | Root | 0.0 | 385.0 | -1.0 | -- |
| 6 | OXYPEUCEDANIN | Plant | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|---------------------------|------------------|---------|----------|----------------------|---|
| 2 | OXYPEUCEDANIN-HYDRATE | Seed | 0.6 | 3.8 | -1.0 | Wealth of India. |
| 2 | OXYPEUCEDANIN-HYDRATE | Fruit | | | | -- |
| 2 | OXYPEUCEDANIN-HYDRATE | Shoot | | | | -- |
| 2 | OXYPEUCEDANIN-HYDRATE | Root | | 1500.0 | | -- |
| 2 | OXYPEUCEDANIN-HYDRATE | Plant | | | | -- |
| 0 | OXYPEUCIDANIN | Root | | | | -- |
| 0 | OXYPEUCIDANIN-HYDRATE | Root | | | | -- |
| 0 | OXYPEUCIDANIN-METHANOLATE | Root | | | | -- |
| 0 | P-CYMEN-8-OL | Root | 1.0 | 31.0 | | -- |
| 16 | P-CYMENE | Root Essent. Oil | | | | -- |
| 16 | P-CYMENE | Root | 40.0 | 980.0 | 1.731986088156794 | -- |
| 16 | P-CYMENE | Seed | 800.0 | 5050.0 | 0.5834563158237798 | Wealth of India. |
| 0 | P-CYMENE-8-OL | Root Essent. Oil | | | | -- |
| 0 | P-MENTH-CIS-2-EN-1-OL | Root Essent. Oil | | | | -- |
| 0 | P-MENTH-TRANS-2-EN-1-OL | Root Essent. Oil | | | | -- |
| 13 | PALMITIC-ACID | Seed | | | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| 13 | PALMITIC-ACID | Fruit | | | | -- |
| 13 | PALMITIC-ACID | Root Essent. Oil | | 60000.0 | -0.14585513924522536 | -- |
| 1 | PALMITIC-ACID-ETHYL-ESTER | Root Essent. Oil | | | | -- |
| 2 | PALMITOLEIC-ACID | Fruit | | | | -- |
| 2 | PALMITOLEIC-ACID | Seed | | | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| 0 | PENTADECAN-1-AL | Root Essent. Oil | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|-------------------------|------------------|----------|----------|---------------------|---|
| 0 | PENTADECAN-1-AL | Root | | | | -- |
| 0 | PENTADECANAL | Root | | | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 1 | PENTADECANOIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | PENTADECANOLIDE | Root Essent. Oil | | 60000.0 | | -- |
| 0 | PENTADECANOLIDE | Root | 15.0 | 37.0 | | -- |
| 0 | PETROSELINIC-ACID | Fruit | | | | -- |
| 0 | PETROSELINIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | PETROSELINIC-ACID | Seed | | 427000.0 | -0.4900561802158002 | -- |
| 0 | PEUCENIN-7-METHYL-ETHER | Root | | | | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp. |
| 0 | PELLANDRAL | Root | 0.0 | 4.0 | | -- |
| 2 | PHELLOPTERIN | Plant | | | | -- |
| 2 | PHELLOPTERIN | Root | | | | Phytochem. Anal. 3(1):42-48. 1992 |
| 7 | PHENYLALANINE | Leaf | | | | -- |
| 7 | PIMPINELLIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 7 | PIMPINELLIN | Fruit | | | | -- |
| 7 | PIPERITONE | Root | 0.0 | 3.0 | | -- |
| 0 | PRANGOLARIN | Plant | | | | -- |
| 0 | PRANGOLARIN | Root | | | | -- |
| 0 | PRANGOLARIN | Seed | 12.0 | 75.0 | | Wealth of India. |
| 0 | PROTEIN | Seed | 319000.0 | 325000.0 | 0.8113062118868037 | -- |
| 31 | PSORALEN | Seed | | 100.0 | -0.6857885534361138 | -- |
| 31 | PSORALEN | Fruit | | 310.0 | -0.3807181031466607 | -- |
| 31 | PSORALEN | Plant | | | | -- |
| 31 | PSORALEN | Root | 2.0 | 140.0 | 1.2840756412696184 | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|---|------------------|---------|----------|---------------------|---|
| 0 | QUERCETIN-GLYCOSIDE | Fruit | | | | -- |
| 1 | QUINIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | ROSIFOLIOL | Root | | | | -- |
| 4 | RUTAMARIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 5 | SABINENE | Root Essent. Oil | | | | -- |
| 5 | SABINENE | Root | 2.0 | 95.0 | 0.0843149140979014 | -- |
| 5 | SABINOL | Root | 0.0 | 34.0 | | -- |
| 0 | SABINYL-ACETATE | Root | 0.0 | 5.0 | | -- |
| 44 | SCOPOLETIN | Root | | | | -- |
| 44 | SCOPOLETIN | Tissue Culture | | | | -- |
| 0 | SEC-O-BETA-D-GLUCOPYRANOSYL-(R)-BYAKANGELICIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | SPATHULENOL | Root | | | | -- |
| 1 | SPHONDIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 8 | STEARIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 8 | STEARIC-ACID | Fruit | | | | -- |
| 0 | STEARIC-ACID-ETHYL-ESTER | Root Essent. Oil | | | | -- |
| 12 | STIGMASTEROL | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 12 | STIGMASTEROL | Fruit | | | | -- |
| 7 | SUCCINIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 14 | SUCROSE | Root | | | | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp. |
| 0 | TANNINS | Root | | | | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp. |
| 23 | TERPINEN-4-OL | Root | 0.0 | 10.0 | -0.5731321285364237 | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|---|------------------|---------|----------|--------|--|
| 23 | TERPINEN-4-OL | Root Essent. Oil | | | | -- |
| 0 | TERPINENOL | Root Essent. Oil | | | | -- |
| 9 | TERPINOLENE | Root | 0.0 | 16.0 | -1.0 | -- |
| 9 | TERPINOLENE | Root Essent. Oil | | | | -- |
| 0 | TERT-O-BETA-D-GLUCOPYRANOSYL-(R)-BYAKANGELICIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | TERT-O-BETA-D-GLUCOPYRANOSYL-(R)-HERACLENOL | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | TERT-O-BETA-D-GLUCOPYRANOSYL-(R)-ISOBYAKANGELICIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | TETRADECAN-1-AL | Root | | | | -- |
| 0 | TETRADECAN-1-OL-ACETATE | Root | | | | -- |
| 0 | TETRADECANAL | Root | | 2.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | TETRADECANE | Root | 0.0 | 2.0 | | -- |
| 2 | THUJOPSENE | Root | | | | -- |
| 1 | TIGLIC-ACID | Plant | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| 0 | TRANS-1(7),5-P-MENTHADIEN-2-YL-ACETATE | Plant | | | | J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991. |
| 0 | TRANS-1-ETHOXY-2-P-MENTHENE | Root | | 6.0 | | -- |
| 0 | TRANS-3-ETHOXY-1-P-MENTHANE | Root | | 4.0 | | -- |
| 0 | TRANS-4-ETHOXY-2-PINENE | Root | | 79.0 | | -- |
| 0 | TRANS-4-ETHOXY-PIN-2-ENE | Root Essent. Oil | | | | -- |
| 0 | TRANS-4-ETHOXY-THUJANE | Root Essent. Oil | | | | -- |
| 0 | TRANS-4-ETHOXY-THUJANE | Root | | 10.0 | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|------------------------------------|------------------|---------|----------|--------|--|
| 0 | TRANS-6-NITRO-1(7),2-P-MENTHADIENE | Plant | | | | J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991. |
| 8 | TRANS-ANETHOLE | Root | 2.0 | 13.0 | | -- |
| 2 | TRANS-BETA-FARNESENE | Root | 2.0 | 10.0 | | -- |
| 1 | TRANS-CARVEOL | Root Essent. Oil | | | | -- |
| 1 | TRANS-CARVEOL | Root | 0.0 | 11.0 | | -- |
| 0 | TRANS-CARVEOL-ACETATE | Root Essent. Oil | | | | -- |
| 0 | TRANS-CARVYL-ACETATE | Root | 2.0 | 5.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | TRANS-OCIMENE | Root | 10.0 | 268.0 | | -- |
| 0 | TRANS-OCIMENE | Root Essent. Oil | | | | -- |
| 0 | TRANS-P-MENTH-2-EN-1-OL | Root | 0.0 | 25.0 | | -- |
| 0 | TRANS-PINOCARVEOL-ACETATE | Root Essent. Oil | | | | -- |
| 0 | TRANS-PINOCARVYL-ACETATE | Root | 5.0 | 17.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | TRANS-PIPERITOL | Root | | 30.0 | | -- |
| 0 | TRANS-PIPERITOL | Root Essent. Oil | | | | -- |
| 0 | TRANS-SABINENE-HYDRATE | Root | | 1.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | TRANS-SABINENE-HYDRATE | Root Essent. Oil | | | | -- |
| 0 | TRANS-VERBENOL | Root | 20.0 | 64.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | TRANS-VERBENOL | Root Essent. Oil | | | | -- |
| 0 | TRANS-VERBENOL-ACETATE | Root Essent. Oil | | | | -- |
| 0 | TRANS-VERBENOL-ISOVALERATE | Root Essent. Oil | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|----------------------------------|------------------|---------|----------|--------|--|
| 0 | TRANS-VERBENYL-2-METHYL-BUTYRATE | Root | 1.0 | 4.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | TRANS-VERBENYL-ACETATE | Root | 15.0 | 46.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | TRANS-VERBENYL-ISOVALERATE | Root | 6.0 | 17.0 | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| 0 | TRIDECAN-1-OL | Root | | | | -- |
| 2 | TRIDECANOIC-ACID | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 0 | TRIDECANOLIDE | Root Essent. Oil | | | | -- |
| 0 | TRIDECANOLIDE | Root | 15.0 | 45.0 | | -- |
| 29 | TRYPTOPHAN | Leaf | | | | -- |
| 8 | TYROSINE | Leaf | | | | -- |
| 0 | UMBELLIFEREN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 22 | UMBELLIFERONE | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 22 | UMBELLIFERONE | Fruit | | | | -- |
| 22 | UMBELLIFERONE | Root | | 200.0 | | -- |
| 0 | UMBELLIFEROSE | Root | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| 0 | UMBELLIPRENIN | Seed | 4.0 | 57.0 | | -- |
| 0 | UMBELLIPRENIN | Root | | | | -- |
| 0 | UMBELLIPRENIN | Fruit | | | | -- |
| 0 | UNDEC-5-EN-3-YNE | Root | | | | -- |
| 3 | VALINE | Leaf | | | | -- |
| 2 | VIOLAXANTHIN | Leaf | | | | -- |
| 1 | VISNAGIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Refernce Citation |
|------------------|---------------|------------|---------|----------|--------|--|
| 43 | XANTHOTOXIN | Shoot | | | | -- |
| 43 | XANTHOTOXIN | Plant | | | | -- |
| 43 | XANTHOTOXIN | Seed | 2.0 | 1900.0 | -1.0 | -- |
| 43 | XANTHOTOXIN | Fruit | | 42.0 | 1.0 | -- |
| 43 | XANTHOTOXIN | Root | | | | -- |
| 5 | XANTHOTOXOL | Fruit | | | | -- |
| 5 | XANTHOTOXOL | Seed | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| 5 | XANTHOTOXOL | Plant | | | | -- |
| 1 | XANTHOXYLETIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |
| 5 | ZEAXANTHIN | Leaf | | | | -- |
| 6 | ZINGIBERENE | Root | 0.0 | 5.0 | -1.0 | -- |
| 0 | ZOZYMIN | Plant | | | | Pakistan Encyclopedia Planta Medica. 1986. |