

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Plantago ovata*

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|---------------------------------|------------|---------|----------|--------|--|
| 0 | ISOHEPTADECANE | Seed Coat | | | | -- |
| 0 | N-HEXADECANE | Seed Coat | | | | -- |
| 0 | ISOTRITRIACONTANE | Seed Coat | | | | -- |
| 0 | DL-VALINE | Plant | | | | -- |
| 0 | 9-OXO-OCTADEC-CIS-12-ENOIC-ACID | Seed Oil | | | | -- |
| 0 | ANTE-ISO-OCTADECANE | Seed Coat | | | | -- |
| 0 | STEROL | Plant | | | | -- |
| 0 | N-HEPTACOSANE | Seed Coat | | | | -- |
| 0 | L-RHAMNOSE | Seed | | | | Wichtl, M. 1984. Teedrogen. Ein Handbuch für Apotheker und Ärzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. |
| 0 | N-TRICOSANE | Seed Coat | | | | -- |
| 0 | DL-NORLEUCINE | Seed | | | | -- |
| 0 | TANNINS | 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 | (+)-BOSCHNIAKINIC-ACID | Seed | | | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| 0 | N-HENEICOSANE | Seed Coat | | | | -- |
| 0 | L-LYSINE | Seed | | | | -- |
| 0 | N-TRIACONTANE | Seed Coat | | | | -- |
| 0 | DL-ALANINE | Seed | | | | -- |
| 0 | D-XYLOSE | 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 | ISONONACOSANE | Seed Coat | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|---------------------|------------|---------|----------|--------|--|
| 0 | (+)-BOSCHNIAKINE | Seed | | | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| 0 | RHAMNOSE | Seed | | 70000.0 | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 0 | N-DOTRIACONTANE | Seed Coat | | | | -- |
| 0 | L-CYSTINE | Seed | | | | -- |
| 0 | ISORICINOLEIC-ACID | Seed Oil | | | | -- |
| 0 | N-TETRACOSANE | Seed Coat | | | | -- |
| 0 | D-XYLOSE | Plant | | | | -- |
| 0 | PLANTEOSE | Seed | | | | -- |
| 0 | FIXED-OIL | Endosperm | | 88000.0 | | -- |
| 0 | L-ASPARAGINE | Seed | | | | -- |
| 0 | PLATAGONINE | Seed | | | | -- |
| 0 | D-GALACTURONIC-ACID | Seed | | | | Wichtl, M. 1984. Teedrogen. Ein Handbuch für Apotheker und Ärzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. |
| 0 | D-GALACTURONIC-ACID | Plant | | | | -- |
| 0 | LINOLENIC-ACID | Seed Coat | | | | -- |
| 0 | INDICAININE | Seed | | | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| 0 | N-EICOSANE | Seed Coat | | | | -- |
| 0 | L-ARABINOSE | Seed | | 140000.0 | 1.0 | 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 | N-PENTACOSANE | Seed Coat | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|----------------------------|------------|----------|----------|---------------------|---|
| 0 | ARABINOXYLANS | Seed | 170000.0 | 255000.0 | | Wichtl, M. 1984. Teedrogen. Ein Handbuch für Apotheker und Ärzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. |
| 0 | ISODOTRIACONTANE | Seed Coat | | | | -- |
| 0 | ISOHEXADECANE | Seed Coat | | | | -- |
| 0 | INDICAMINE | Plant | | | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 0 | ISOPENTACOSANE | Seed Coat | | | | -- |
| 0 | INDICAINE | Seed | | | | -- |
| 0 | ALDOBIURONIC-ACID | Seed | | | | -- |
| 0 | N-DOCOSANE | Seed Coat | | | | -- |
| 0 | ISOHENTRIACONTANE | Seed Coat | | | | -- |
| 0 | URONIC-ACID | Seed | | | | -- |
| 0 | ALSOBIURONIC-ACID | Seed | | | | -- |
| 0 | ANTE-ISOHEXADECANE | Seed Coat | | | | -- |
| 0 | (-)-L-ASPARAGINE | Seed | | | | -- |
| 0 | 4-O-METHYL-GLUCURONIC-ACID | Plant | | | | -- |
| 0 | LINOLENIC-ACID | Seed | 511.0 | 1500.0 | -0.5536758709883314 | -- |
| 0 | DL-VALINE | Seed | | | | -- |
| 0 | AUCUBIN-GLUCOSIDE | Seed | | | | -- |
| 0 | N-OCTADECANE | Seed Coat | | | | -- |
| 0 | N-HEPTADECANE | Seed Coat | | | | -- |
| 0 | N-NONADECANE | Seed Coat | | | | -- |
| 0 | N-TRITRIACONTANE | Seed Coat | | | | -- |
| 0 | FAT | Seed | 50000.0 | 51000.0 | -1.1292561293337569 | -- |
| 0 | ISOOCTADECANE | Seed Coat | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|------------------|------------|----------|----------|---------------------|--|
| 1 | LIGNOCERIC-ACID | Seed | | 400.0 | -0.5742301369933868 | Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981. |
| 1 | N-NONACOSANE | Seed Coat | | | | -- |
| 1 | BEHENIC-ACID | Seed | | 1300.0 | -0.5564308287176762 | -- |
| 1 | GALACTOSE | Seed | | | | -- |
| 2 | PHYTOSTEROLS | Seed | | | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| 2 | CAMPESTEROL | Seed | | | | -- |
| 2 | N-HEXACOSANE | Seed Coat | | | | -- |
| 3 | N-HENTRIACONTANE | Seed Coat | | | | -- |
| 3 | XYLOSE | Seed | 460000.0 | 800000.0 | 1.0 | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| 3 | VALINE | Plant | | | | -- |
| 3 | MUCILAGE | Seed | 100000.0 | 300000.0 | 0.6463360496314006 | -- |
| 3 | MUCILAGE | Seed Coat | | | | -- |
| 6 | MYRISTIC-ACID | Seed Coat | | | | -- |
| 6 | MYRISTIC-ACID | Seed | | 1300.0 | -0.2789850933065345 | -- |
| 7 | GLUCOSE | Seed | | | | -- |
| 8 | STEARIC-ACID | Seed Coat | | | | -- |
| 8 | STEARIC-ACID | Seed | 1300.0 | 3450.0 | -0.4905367554394443 | Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981. |
| 8 | GLUTAMIC-ACID | Seed | | | | -- |
| 8 | TYROSINE | Seed | | | | -- |
| 8 | FRUCTOSE | Seed | | | | -- |

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|-----------------|------------|---------|----------|----------------------|---|
| 9 | BETA-AMYRIN | Seed | | | | -- |
| 10 | ALPHA-AMYRIN | Seed | | | | -- |
| 12 | GLYCINE | Seed | | | | -- |
| 12 | STIGMASTEROL | Seed | | | | -- |
| 13 | PALMITIC-ACID | Seed | 1300.0 | 5500.0 | -0.5861182036028835 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 13 | PALMITIC-ACID | Seed Coat | | | | -- |
| 14 | SUCROSE | Seed | | | | -- |
| 14 | SUCROSE | Plant | | | | -- |
| 18 | OLEIC-ACID | Seed | 8000.0 | 19470.0 | -0.8190453796719163 | -- |
| 18 | OLEIC-ACID | Seed Oil | | 254000.0 | -0.35106622403308685 | -- |
| 18 | OLEIC-ACID | Seed Coat | | | | -- |
| 20 | AUCUBIN | Seed | | | | Wichtl, M. 1984. Teedrogen. Ein Handbuch für Apotheker und Ärzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. |
| 27 | LINOLEIC-ACID | Seed | 13000.0 | 24375.0 | -0.7089861957266169 | -- |
| 27 | LINOLEIC-ACID | Seed Coat | | | | -- |
| 27 | LINOLEIC-ACID | Seed Oil | | 534000.0 | 0.5619112798571412 | -- |
| 27 | LINOLEIC-ACID | Se | 13000.0 | 24375.0 | | -- |
| 35 | TANNIN | Plant | | | | -- |
| 47 | BETA-SITOSTEROL | Seed | | | | -- |
| 78 | LUTEOLIN | Leaf | | | | -- |