

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Linum usitatissimum*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	ALPHA-LINOLENIC-ACID	Seed	108000.0	254600.0	4.689859301771256	--
4	PHOSPHORUS	Seed	3961.0	20335.0	3.9590351958118073	--
7	GLUCOSE	Seed	111000.0	146000.0	3.201211441889907	--
77	ZINC	Seed	85.0	155.0	3.1191728559254055	Cunane, S. and Thompson, L. U., eds. 1995. Flaxseed in Human Nutrition. AOCS Press, Champaign IL. 384 pp.
24	PECTIN	Seed	53900.0	100000.0	2.5314122594852875	--
6	IRON	Seed	29.0	549.0	1.8501912385034966	--
65	MAGNESIUM	Seed	3715.0	7002.0	1.6024579573476614	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
9	PHYTIC-ACID	Seed	18000.0	33000.0	1.1694904127352321	--
3	CADMIUM	Seed	0.075	2.8	1.0827489707798146	Cunane, S. and Thompson, L. U., eds. 1995. Flaxseed in Human Nutrition. AOCS Press, Champaign IL. 384 pp.
15	FIBER	Hay	365000.0	462000.0	1.0	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
2	NICOTINAMIDE	Seed		38.0	1.0	--
2	PHOSPHATIDYL-CHOLINE	Seed	160.0	2025.0	1.0	Cunane, S. and Thompson, L. U., eds. 1995. Flaxseed in Human Nutrition. AOCS Press, Champaign IL. 384 pp.
14	SULFUR	Seed	608.0	4200.0	0.9418680963960322	--
1	SODIUM	Seed	400.0	1014.0	0.8939255700301022	--
14	GAMMA-TOCOPHEROL	Oil		573.0	0.7575983644124141	--
12	COPPER	Seed	17.0	23.0	0.7424671767599702	Cunane, S. and Thompson, L. U., eds. 1995. Flaxseed in Human Nutrition. AOCS Press, Champaign IL. 384 pp.
28	CALCIUM	Seed	1820.0	7400.0	0.5975460826300514	--
13	LIGNIN	Seed	52000.0	72000.0	0.4935473881578569	Cunane, S. and Thompson, L. U., eds. 1995. Flaxseed in Human Nutrition. AOCS Press, Champaign IL. 384 pp.
1	CELLULOSE	Seed	93000.0	147000.0	0.3583523215580603	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	POTASSIUM	Seed	7964.0	15009.0	0.21448936936526888	--
14	MANGANESE	Seed	50.0	70.0	0.2052706550190378	--
18	OLEIC-ACID	Seed	16.0	120000.0	0.007370246204918166	--
27	LINOLEIC-ACID	Seed	30000.0	100000.0	-0.06102368779923489	--
15	FIBER	Seed	48000.0	126000.0	-0.06931908335079716	--
18	OLEIC-ACID	Seed Oil		283000.0	-0.1995525939212177	--
8	STEARIC-ACID	Seed	13595.0	16545.0	-0.20641972214709475	Cunane, S. and Thompson, L. U., eds. 1995. Flaxseed in Human Nutrition. AOCS Press, Champaign IL. 384 pp.
13	PALMITIC-ACID	Seed	19005.0	22515.0	-0.23504354469855987	Cunane, S. and Thompson, L. U., eds. 1995. Flaxseed in Human Nutrition. AOCS Press, Champaign IL. 384 pp.
8	STEARIC-ACID	Seed Oil		81000.0	-0.2772564234419937	--
25	P-COUMARIC-ACID	Seed		60.0	-0.364755663014079	--
9	HCN	Seed	0.08	600.0	-0.3812623601747087	--
93	TOCOPHEROL	Seed		47.0	-0.4002735595606585	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
53	BETA-CAROTENE	Seed	0.0	0.321	-0.4092431063494038	--
16	ACETIC-ACID	Seed	3105.0	3853.0	-0.45177356521117334	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
20	CHOLINE	Seed	910.0	1180.0	-0.46342254709086045	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	TRANS-FERULIC-ACID	Seed		375.0	-0.47614826602151417	--
20	LECITHIN	Seed		8800.0	-0.4991948044159543	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	CHLORINE	Seed	42.0	78.0	-0.5791204881302392	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
13	PALMITIC-ACID	Seed Oil		90000.0	-0.6107337786717688	--
47	BETA-SITOSTEROL	Seed		19.0	-0.6236819715213897	--
14	SUCROSE	Seed		388.0	-0.6923667566162774	--
32	ALPHA-TOCOPHEROL	Oil		5.0	-0.6929583568728471	--
15	RIBOFLAVIN	Seed		1.7	-0.6991387592002618	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	MUCILAGE	Seed	20000.0	84000.0	-0.7141062298500116	--
27	LINOLEIC-ACID	Seed Oil		182000.0	-0.8223368361797175	--
39	NIACIN	Seed		15.0	-0.8347441211060711	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
5	DAUCOSTEROL	Seed		3.0	-0.8762395152008512	--
65	MAGNESIUM	Hay		3100.0	-1.0	--
10	LIGNANS	Seed	525.0	675.0	-1.0	Cunane, S. and Thompson, L. U., eds. 1995. Flaxseed in Human Nutrition. AOCS Press, Champaign IL. 384 pp.
14	MANGANESE	Hay		8.1	-1.0000000000000002	--
14	ARGININE	Seed		0.554	-1.0433413024542735	--
5	STARCH	Seed	2000.0	39000.0	-1.0980435455891777	Cunane, S. and Thompson, L. U., eds. 1995. Flaxseed in Human Nutrition. AOCS Press, Champaign IL. 384 pp.
13	CYSTEINE	Seed		0.09	-1.10002836803819	--
15	METHIONINE	Seed		0.09	-1.1141398667164637	--
29	TRYPTOPHAN	Seed		0.089	-1.1339383282290112	--
31	THIAMIN	Seed		1.8	-1.141416879500738	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
4	LYSINE	Plant		0.209	-1.2551253944019245	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	ISOLEUCINE	Seed		4.0	-1.3382280003117872	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
7	PHENYLALANINE	Seed		0.239	-1.3781037282174438	--
3	ISOLEUCINE	Plant		0.237	-1.4141272939903209	--
3	VALINE	Seed		0.284	-1.4793036444616081	--
12	GLYCINE	Seed		0.352	-1.5834447610833413	--
7	HISTIDINE	Seed		0.108	-1.6280448288553528	--
2	LEUCINE	Seed		0.316	-1.6349859893322434	--
4	LYSINE	Seed		2.5	-1.63848275248756	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
8	GLUTAMIC-ACID	Seed		1.153	-1.7598687378912001	--
8	TYROSINE	Seed		0.133	-1.7932335597859743	--
4	THREONINE	Seed		0.195	-1.8202596354546852	--
3	ASPARTIC-ACID	Seed		0.557	-2.0052985487141943	--
1	SERINE	Seed		0.248	-2.0265239206958663	--
3	ALANINE	Seed		0.254	-2.158955919799553	--
2	LINAMARIN	Seed	0.0	320.0		--
77	CHLOROGENIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
18	OLEIC-ACID	Flower				--
15	ALPHA-LINOLENIC-ACID	Flower				--
14	POTASSIUM	Hay		17400.0		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
15	MALIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

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2	ERUCIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
10	LIGNANS	Plant				--
18	VITEXIN	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
9	HCN	Root		670.0		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
15	ALPHA-LINOLENIC-ACID	Sprout Seedling				--
12	STIGMASTEROL	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	O-GLYCOFLAVONE-C-GLYCOSIDE	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
5	CONIFERYL-ALDEHYDE	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
1	PHYTOL	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	EICOSANOL	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	CAMPESTEROL	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
33	NORDIHYDROGUAIARETIC-ACID	Seed				--

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12	VICENIN-2	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	NICKEL	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
9	HCN	Hull Husk		460.0		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	CHOLESTEROL	Seed				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
1	DELTA-5-AVENASTEROL	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
16	VANADIUM	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
10	SQUALENE	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
9	HCN	Flower		6920.0		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
4	PHOSPHORUS	Hay		1110.0		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
9	DELPHINIDIN	Flower				Abstract (See species file)
4	ISOVITEXIN	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
28	CALCIUM	Hay		7200.0		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

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27	LINOLEIC-ACID	Flower				--
1	NEOLINUSTATIN	Seed	19.0	4540.0		--
4	ISOORIENTIN	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
27	LINOLEIC-ACID	Sprout Seedling				--
3	SILVER	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
6	MYRISTIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
32	ALPHA-TOCOPHEROL	Seed Oil				--
78	LUTEOLIN	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	CYCLOARTENOL	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
20	GAMMA-LINOLENIC-ACID	Seed				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
14	GAMMA-TOCOPHEROL	Seed Oil				--
2	LOTAUSTRALIN	Seed				--
7	CYANIDIN	Flower				Abstract (See species file)
61	FERULIC-ACID	Seed				--
3	SECOISOLARICIRE SINOL	Plant				Stitt, Paul. Why George should eat broccoli.

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2	MOLYBDENUM	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
11	GERANYL-GERANIOL	Seed				--
10	SQUALENE	Seed Oil				--
11	LITHIUM	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	COBALT	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
9	SINAPIC-ACID	Seed				--
2	ARSENIC	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
4	DELTA-TOCOPHEROL	Seed Oil				--
4	TIN	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
11	PANTOTHENIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	LINUSTATIN	Seed	4.8	5380.0		--
24	CHROMIUM	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
3	SECOISOLARICRESINOL	Seed				--
13	P-HYDROXY-BENZOIC-ACID	Sprout Seedling				Hegnauer, R. 1962-1997. Chemotaxonomie der Pflanzen, Bde 1-11. Birkhauser Verlag Basel, Boston, Berlin.

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4	GLUCURONIC-ACID	Seed				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
1	RAFFINOSE	Seed				--
1	DELPHINIDIN-3-O-BETA-D-GLUCOSIDE	Flower				--
9	HCN	Shoot		1280.0		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
101	APIGENIN	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
77	CHLOROGENIC-ACID	Seed				--
4	ORIENTIN	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.