

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Sesamum indicum

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	(+)-ASARININ	Seed Oil				--
0	(+)-EPISESAMIN	Seed		1.5		--
0	(+)-EPISESAMINONE	Seed		0.8		--
0	(+)-KOBUSIN	Seed		1.1		--
1	(+)-PINORESINOL	Seed		18.0		--
0	(+)-PINORESINOL-4'-O-BETA-D-GLUCOPYRANOSYL(1,2)-O-(BETA-D-GLUCOPYRANOSYL(1,6)-BETA-D-GLUCOPYRANOSIDE	Seed		52.0		--
0	(+)-PIPERITOL	Seed		1.5		--
0	(+)-SESAMIN	Root				--
0	(+)-SESAMIN	Seed Oil	1700.0	25000.0		--
0	(+)-SESAMIN	Seed		419.0		--
0	(+)-SESAMOLIN	Seed		218.0		--
0	(+)-SESAMOLINOL	Seed		2.0		--
0	2-(4-METHYL-PENT-3-ENYL)-ANTHRAQUINONE	Tissue Culture		29.0		--
0	2-(4-METHYL-PENTA-1,3-DIENYL)-ANTHRAQUINONE	Tissue Culture		18.0		--
0	2-ACETYL-3-METHYL-FURAN	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	2-ACETYL-FURAN	Seed				--
0	2-ACETYL-PYRROLE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	2-HEPTANAL	Seed				--
0	2-ISOPROPENYL-NAPHTHAZARIN-2,3-EPOXIDE	Tissue Culture		550.0		--
0	2-METHOXY-4-ETHYLPHENOL	Seed				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	2-METHOXY-4-VINYLPHENOL	Seed				--
5	24-METHYLENE-CYCLOARTANOL	Seed Oil				--
0	24-METHYLENE-CYCLOARTENOL	Seed				--
0	24-METHYLENE-CYCLOARTENOL	Seed Oil				--
0	3-BETA-(CIS-P-COUMAROYL-OXY)-2-ALPHA-23-DIHYDROXYURS-12-EN-28-OIC-ACID	Tissue Culture				--
0	3-BETA-(TRANS-P-COUMAROYL-OXY)-2-ALPHA-23-DIHYDROXYURS-12-EN-28-OIC-ACID	Tissue Culture				--
0	5-DEHYDRO-AVENASTEROL	Seed Oil				--
0	5-METHYLFURAN	Seed				--
0	7-DEHYDRO-AVENASTEROL	Seed Oil				--
0	ACETYL-PYRAZINE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	AGMATINE	Seed				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
0	AGMATINE	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	ALANINE	Seed	5510.0	14802.0	0.9875991814468537	--
10	ALPHA-AMYRIN	Seed				--
10	ALPHA-AMYRIN	Seed Oil				--
0	ALPHA-FORMYL-PYRROLE	Seed				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
0	ALPHA-GLOBULIN	Seed				--
15	ALPHA-LINOLENIC-ACID	Seed	3760.0	3945.0	-0.25308245902136395	USDA's Ag Handbook 8 and sequelae)
32	ALPHA-TOCOPHEROL	Seed	22.0	24.0	-0.6547280212396758	USDA's Ag Handbook 8 and sequelae)
32	ALPHA-TOCOPHEROL	Seed Oil				--
0	ARACHIDIC-ACID	Seed	1312.0	6910.0	0.020671398663478543	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
12	ARACHIDONIC-ACID	Seed Oil		10000.0	-1.0	--
14	ARGININE	Seed	15800.0	39000.0	0.6080385422043314	--
6	ASARININ	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	ASH	Seed	42270.0	65000.0	0.5149256070757601	--
0	ASH	Leaf		124000.0	0.09070686116392972	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
3	ASPARTIC-ACID	Seed	9890.0	23795.0	0.10706552576082938	--
0	AVENASTEROL	Seed Oil				--
1	BEHENIC-ACID	Seed Oil		5000.0	-0.9878540946843569	--
9	BETA-AMYRIN	Seed Oil				--
53	BETA-CAROTENE	Seed				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
47	BETA-SITOSTEROL	Seed	4000.0	4430.0	1.0689489063880537	--
47	BETA-SITOSTEROL	Seed Oil				--
0	BETA-TOCOPHEROL	Seed Oil				--
4	BIOTIN	Seed		0.06	-0.5321653886775989	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
4	BORON	Seed	4.0	13.0	-0.527070146985773	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).
102	CAFFEIC-ACID	Fruit				--
102	CAFFEIC-ACID	Leaf				--
28	CALCIUM	Seed	800.0	12638.0	1.559546414108043	--
2	CAMPESTEROL	Seed Oil				--
2	CAMPESTEROL	Seed		910.0	1.257580898323325	--
0	CAMPNEOSIDE-I	Plant		331.0		--
0	CAMPNEOSIDE-II	Plant		50.0		--
0	CARBOHYDRATE	Leaf		593000.0	-0.6999460685141606	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	CARBOHYDRATE	Seed	93900.0	245990.0	-1.1514986780390468	--
0	CARBOHYDRATES	Seed	93900.0	245990.0	-1.1024924721291736	--
0	CARBOHYDRATES	Leaf		593000.0	-0.14990414363870283	--
1	CEPHALIN	Seed	133168.0	233856.0	1.4137852249381333	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
77	CHLOROGENIC-ACID	Leaf				Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp.
1	CHOLESTEROL	Seed Oil				--
20	CHOLINE	Seed		1320.0	-0.3316532045745466	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
24	CHROMIUM	Seed		1.4	-0.47854838847626374	--
0	CISTANOSIDE-F	Plant		217.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	CITROSTADIENOL	Seed Oil				--
0	CITRULLIN	Leaf				--
2	COBALT	Seed		0.3	-0.19293256087664387	--
12	COPPER	Plant	14.0	56.0	4.649289577867317	--
7	CYCLOARTENOL	Seed Oil				--
7	CYCLOARTENOL	Seed				--
3	CYCLOEUCALENOL	Seed Oil				--
2	CYSTINE	Seed	2380.0	5494.0	1.6307066362980478	--
0	DECAFFEOYL- VERBASCOSIDE	Plant		201.0		--
0	DELTA-AVENASTEROL	Seed				--
4	DELTA-TOCOPHEROL	Seed Oil				--
2	DIACETYL	Seed Oil				--
0	EPIASARININ	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	EPISESAMIN	Seed				--
0	EPISESAMINOL	Seed				--
0	ESCULENTIC-ACID	Tissue Culture				--
0	FAT	Seed	328000.0	576321.0	1.6377974845632437	--
0	FAT	Leaf		48000.0	-0.16862267810970435	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	FATTY-ACIDS	Seed Oil				--
61	FERULIC-ACID	Leaf				--
61	FERULIC-ACID	Fruit				--
15	FIBER	Seed	27100.0	67000.0	-0.5351931600661047	--
15	FIBER	Leaf		166000.0	0.055215830855244494	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
15	FOLACIN	Seed	0.967	1.015	-0.6556235349431935	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
23	FOLIC-ACID	Seed		0.2	-0.357050102053154	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	FURFURYL-ALCOHOL	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	GADOLEIC-ACID	Seed	700.0	734.0	-0.6225891121353573	USDA's Ag Handbook 8 and sequelae)
0	GADOLEIC-ACID	Seed Oil		5000.0		--
1	GALACTOSE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
14	GAMMA-TOCOPHEROL	Seed Oil	60.0	70.0		--
8	GENTISIC-ACID	Leaf				--
7	GLUCOSE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
8	GLUTAMIC-ACID	Seed	24670.0	51927.0	0.4309287044456456	--
12	GLYCINE	Seed	5890.0	19918.0	1.2963001642904226	--
0	GLYOXAL	Seed Oil				--
0	GRAMISTEROL	Seed Oil				--
18	GUAIACOL	Seed				Jim Duke's personal files.
0	HEPTANAL	Seed				--
0	HEXADECENOIC-ACID	Seed	0.0	2880.0	-0.034010851192571794	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
5	HEXANAL	Seed				--
4	HEXENAL	Seed				--
7	HISTIDINE	Seed	3050.0	7112.0	0.2626356126689672	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	INOSITOL	Seed		740.0	-0.9941677328897403	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
12	IODINE	Seed		0.023	-0.2762836791599329	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
6	IRON	Seed	20.0	169.0	0.08459481935658517	--
3	ISOLEUCINE	Seed	7630.0	13541.0	0.3891138557093915	USDA's Ag Handbook 8 and sequelae)
0	KILOCALORIES	Plant		6700.0	3.1315679659830553	--
0	L-CITRULLINE	Leaf				--
20	LECITHIN	Seed	58.0	395.0	-0.7285894496222322	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	LEUCINE	Seed	4430.0	22586.0	0.5268889975147768	--
1	LIGNOCERIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
27	LINOLEIC-ACID	Seed	123656.0	278784.0	1.4708153735864058	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
27	LINOLEIC-ACID	Seed Oil		500000.0	0.4282054959217627	--
0	LINOLENIC-ACID	Seed Oil		10000.0	-0.9623132630011788	--
0	LYCHNOSE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
4	LYSINE	Seed	2890.0	8729.0	-0.4564317934443026	--
0	M-METHOXYPHENOL	Seed				Jim Duke's personal files.
65	MAGNESIUM	Seed	3052.0	4082.0	0.4487851029172083	USDA's Ag Handbook 8 and sequelae)
14	MANGANESE	Seed		14.0	-0.49230742660565563	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	METHIONINE	Seed	3120.0	9413.0	1.3164528786656502	--
0	METHYL-GLYOXAL	Seed Oil				--
6	MYRISTIC-ACID	Seed Oil				--
6	MYRISTIC-ACID	Seed	328.0	1728.0	-0.2733822031551511	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	N-CARBAMYLPUTRESCINE	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	NEPETIN	Leaf				--
39	NIACIN	Seed	36.0	57.0	0.4224885763367207	--
3	NICKEL	Seed		1.2	-0.6794593747039365	--
0	NONANAL	Seed				--
4	O-COUMARIC-ACID	Leaf				--
4	O-COUMARIC-ACID	Fruit				--
0	OBTUSIFOLIOL	Seed Oil				--
0	OCTANAL	Seed				--
18	OLEIC-ACID	Seed	114800.0	284544.0	1.3600185377027583	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
18	OLEIC-ACID	Seed Oil		500000.0	0.9341873279503548	--
9	OXALIC-ACID	Seed				--
25	P-COUMARIC-ACID	Fruit				--
25	P-COUMARIC-ACID	Leaf				--
1	P-METHOXY-PHENOL	Seed				Jim Duke's personal files.
10	PABA	Seed		0.65		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
13	PALMITIC-ACID	Seed Oil		120000.0	-0.4112562243968307	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
13	PALMITIC-ACID	Seed	25584.0	54144.0	0.41756535253828103	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	PALMITOLEIC-ACID	Seed Oil		5000.0	1.4136045562891428	--
2	PALMITOLEIC-ACID	Seed	1490.0	1563.0	-0.2609484709243904	USDA's Ag Handbook 8 and sequelae)
11	PANTOTHENIC-ACID	Seed	0.5	10.0	-0.7062839299879305	--
0	PEDALIIN	Leaf				Chemical Constituents of Oriental Herbs (3 diff. books)
0	PEDALIIN	Seed		5000.0		--
0	PEDALIN	Leaf		3000.0		--
0	PENTANAL	Seed				--
26	PHENOL	Seed				Jim Duke's personal files.
7	PHENYLALANINE	Seed	5710.0	9863.0	-0.200314943712448	--
0	PHOSPHOLIPIDS	Seed	111.0	760.0	-0.8764139025397214	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
4	PHOSPHORUS	Leaf		14000.0	1.6611347848407145	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
4	PHOSPHORUS	Seed	5000.0	8898.0	0.936704814556836	--
0	PHYTATE	Seed	16160.0	17240.0	0.6105518332723898	--
2	PHYTOSTEROLS	Seed	7140.0	7490.0	1.408046105509713	--
2	PINORESINOL	Seed		163.0		--
0	PINORESINOL-4'-O-BETA-D-GLUCOPYRANOSYL(1,2)-BETA-D-GLUCOPYRANOSIDE	Seed		42.0		--
0	PINORESINOL-4'-O-BETA-D-GLUCOPYRANOSYL(1,6)-BETA-D-GLUCOPYRANOSIDE	Seed		21.0		--
0	PINORESINOL-GLYCOSIDE	Seed				--
0	PLANTEOSE	Seed				--
14	POTASSIUM	Seed	3489.0	7664.0	-0.4314556529687381	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	PROLINE	Seed	8100.0	14277.0	0.5778139885838669	--
0	PROTEIN	Seed	141000.0	295000.0	0.5444406755455964	--
0	PROTEIN	Leaf		234000.0	0.2210170390893288	--
43	PROTocatechuic-acid	Leaf				--
43	PROTocatechuic-acid	Fruit				--
0	PUTRESCINE	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
43	PYRIDOXINE	Seed	1.0	8.0	0.4944256898154116	USDA's Ag Handbook 8 and sequelae)
1	RAFFINOSE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
15	RIBOFLAVIN	Seed	0.6	3.0	-0.20090831129253928	--
15	RIBOFLAVIN	Leaf		21.0	-0.07942432526480918	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
7	SALICYLATES	Seed	2.0	4.0	-0.3187165011666821	--
5	SAPONINS	Seed		3000.0	-0.46316315050966533	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
1	SERINE	Seed	6150.0	13751.0	0.6088147219408019	--
15	SESAMIN	Seed Oil		11000.0		--
15	SESAMIN	Sprout Seedling				--
15	SESAMIN	Seed	100.0	1000.0		--
2	SESAMINOL	Seed		84.0		--
2	SESAMINOL	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	SESAMINOL-2'-O-BETA-D-GLUCOPYRANOSIDE	Seed		111.0		--
0	SESAMINOL-2'-O-BETA-D-GLUCOPYRANOSYL(1,2)-O-BETA-D-GLUCOPYRANOSIDE	Seed		1423.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	SESAMINOL-2'-O-BETA-D-GLUCOPYRANOSYL(1,2)-O-BETA-D-GLUCOPYRANOSYL(1,6)-BETA-D-GLUCOPYRANOSIDE	Seed		238.0		--
0	SESAMINOL-DIGLUCOSIDE	Sprout Seedling				--
6	SESAMOL	Seed	10.0	1000.0		--
6	SESAMOL	Seed Oil		1.5		--
3	SESAMOLIN	Seed	100.0	3800.0		--
3	SESAMOLIN	Sprout Seedling				--
3	SESAMOLIN	Seed Oil	1500.0	6000.0		--
1	SESAMOLINOL	Seed		151.0		--
0	SESAMOSE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	SESANOL	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	SIMPLEXOSIDE-AGLYCONE	Seed	16.0	86.0		--
1	SODIUM	Seed	46.0	634.0	0.2907066825484908	--
10	SQUALENE	Seed Oil				--
5	STARCH	Seed	150000.0	200000.0	-0.44608642638946266	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
8	STEARIC-ACID	Seed	11808.0	32832.0	0.146952872066918	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
8	STEARIC-ACID	Seed Oil		60000.0	-0.44929818893786977	--
0	STEROLS	Seed	656.0	3110.0		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	STIGMAST-7-EN-3-BETA-OL	Seed Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
12	STIGMASTEROL	Seed		780.0	0.4608547008204087	--
12	STIGMASTEROL	Seed Oil				--
14	SUCROSE	Seed				--
41	TANNIC-ACID	Seed				--
31	THIAMIN	Seed	5.0	10.0	0.8149652509512033	USDA's Ag Handbook 8 and sequelae)
4	THREONINE	Seed	7360.0	12396.0	0.952613924696679	--
0	TOCOPHEROLS	Seed	150.0	250.0	-0.531049044162352	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	TRANS-FERULIC-ACID	Seed	5.0	40.0	-0.915165703958782	--
29	TRYPTOPHAN	Seed	2010.0	4969.0	0.5606278838797286	--
8	TYROSINE	Seed	4220.0	11818.0	0.9444028227306089	--
3	VALINE	Seed	5490.0	15527.0	0.43296396618414223	--
24	VANILLIC-ACID	Leaf				--
20	VERBASCOSIDE	Plant		388.0		--
0	WATER	Seed	45100.0	50820.0	-0.6784058434444998	USDA's Ag Handbook 8 and sequelae)
77	ZINC	Seed	24.0	102.0	1.6144923436092655	--