

Dr. Duke's Phytochemical and Ethnobotanical Databases
Chemicals found in *Carthamus tinctorius*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
77	ZINC	Flower				--
5	VERBENONE	Flower		0.16		--
6	TRACHELOSIDE	Seed				--
4	TIN	Flower	1.4	10.0	-0.8082238591204874	--
31	THIAMIN	Seed	5.9	6.2	-0.09165085828262295	--
23	TERPINEN-4-OL	Flower	0.01	0.1	-1.2822283694095995	--
8	STEARIC-ACID	Seed	2000.0	6260.0	-0.42956929735990995	--
5	STARCH	Flower	14000.0	100000.0		--
1	SODIUM	Flower	325.0	2320.0	0.7443077617414459	--
4	SILICON	Flower	0.7	4.7	-0.5588401013097406	--
60	SELENIUM	Flower	0.3	2.0	-0.4856005150965234	--
15	RIBOFLAVIN	Seed	1.0	2.0	-0.5841625019907875	--
15	RIBOFLAVIN	Flower	0.5	3.6	-0.6124279137361128	--
14	POTASSIUM	Flower	2674.0	19100.0	-0.017465611124368237	--
4	PHOSPHORUS	Seed	3100.0	3526.0	-0.4828946265642366	--
4	PHOSPHORUS	Plant		3400.0	-0.09065654884395533	--
4	PHOSPHORUS	Flower	332.0	2370.0	-0.5632081846851916	--
2	PHENYL-ACETALDEHYDE	Leaf		0.07		--
2	PHENYL-ACETALDEHYDE	Flower		1.22	0.9999999999999999	--
26	PHENOL	Bud		0.04		--
13	PALMITIC-ACID	Seed	6000.0	18780.0	-0.3121087137263382	--
16	P-CYMENE	Leaf		0.03	-0.4000885643823194	--
16	P-CYMENE	Bud		0.01		--
18	OLEIC-ACID	Seed	11000.0	206580.0	0.7191086813826397	--
39	NIACIN	Seed	5.0	5.3	-1.1251050059916683	--
39	NIACIN	Flower				--
6	MYRISTIC-ACID	Seed	3000.0	9390.0	-0.1730799967535169	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	MUCILAGE	Flower				--
5	METHYL-CINNAMATE	Flower		0.08	-1.0	--
1	MERCURY	Flower		0.02	-0.9956069335307655	--
14	MANGANESE	Flower	0.4	3.1	-0.38175217245146315	--
65	MAGNESIUM	Flower	260.0	1860.0	-0.6881879935904329	--
27	LINOLEIC-ACID	Seed	122000.0	481394.0	3.2067979683786954	--
60	LIMONENE	Leaf		0.01	-0.44777369951183704	--
60	LIMONENE	Bud		0.01		--
1	LIGNOCERIC-ACID	Seed				--
7	LAURIC-ACID	Seed				--
6	IRON	Seed	97.0	102.0	-0.22670770717721234	--
6	IRON	Flower	1.0	8.0	-1.050072826643537	--
2	HUMULENE	Leaf		1.13	-0.46575930703125656	--
2	HUMULENE	Flower	1.6	2.0		--
3	HEXANOL	Leaf		1.06	1.4091405923182305	--
3	HEXANOL	Bud		0.27		--
5	HEXANAL	Bud		0.06		--
2	GERMACRENE-D	Leaf		0.04	-0.525020905500319	--
14	GAMMA-TOCOPHEROL	Oil		26.0	-1.245244060310563	--
15	FIBER	Seed	251000.0	582000.0	3.5313347977031055	--
15	FIBER	Plant	109000.0	582000.0	2.6556495468581263	--
15	FIBER	Flower		93000.0	-0.4719304151098302	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
6	ETHYL-ACETATE	Flower	0.04	0.14	-0.9999999999999999	--
9	DELTA-CADINENE	Leaf		0.12	-0.4635627243605292	--
9	DELTA-CADINENE	Flower	0.63	0.84	-1.0807474918188316	--
12	COPPER	Flower	20.0	26.0	1.8649677339170079	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
2	COBALT	Flower	0.4	2.6	-0.4076076948646282	--
24	CHROMIUM	Flower	0.4	3.1	0.07742646188569892	--
6	CARYOPHYLLENE-EPOXIDE	Flower	2.4	4.5		--
6	CARYOPHYLLENE-EPOXIDE	Leaf		1.14	-1.0000000000000004	--
31	CARYOPHYLLENE	Leaf	27.0	28.0	-0.6518220503422282	--
31	CARYOPHYLLENE	Flower	43.0	50.0	-0.7466837902953343	--
1	CARTHAMIN	Flower	3000.0	6000.0		--
28	CALCIUM	Seed	1260.0	1324.0	-0.5183596092485815	--
28	CALCIUM	Plant		17000.0	0.3648211099783701	--
28	CALCIUM	Flower	620.0	4430.0	-0.3708630185678622	--
3	BETA-SELINENE	Leaf		0.11	-0.5235476750267929	--
3	BETA-SELINENE	Flower	0.14	0.29	-1.0	--
13	BETA-IONONE	Leaf		0.09	-0.970249789050833	--
13	BETA-IONONE	Flower	0.07	0.88	-0.5939949516750141	--
53	BETA-CAROTENE	Flower	13.0	90.0	0.770394138576049	--
3	BENZENE	Flower	0.13	0.25		--
24	BENZALDEHYDE	Leaf		0.04	-0.4691395911467352	--
24	BENZALDEHYDE	Bud		0.1		--
1	BEHENIC-ACID	Seed				--
112	ASCORBIC-ACID	Seed		0.0	-0.33845664486186666	--
112	ASCORBIC-ACID	Flower	14.0	100.0	-0.8040063541862045	--
2	ARSENIC	Flower		0.48	0.6445840747173526	--
5	ALUMINUM	Flower	12.0	84.0	-0.24989404157549264	--
32	ALPHA-TOCOPHEROL	Oil		449.0	-0.0369380787245654	--
11	ALPHA-PHELLANDRENE	Leaf		0.01	-0.3143142988548442	--
11	ALPHA-PHELLANDRENE	Bud		0.01		--
3	ALPHA-CEDRENE	Flower	0.24	1.4		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
1	1-PENTADECENE	Flower	9.0	110.0		--
1	1-PENTADECENE	Leaf		138.0		--
2	(E)-2-HEXENAL	Leaf		1.67	-1.0	--
2	(E)-2-HEXENAL	Flower	0.5	0.6	-1.0000000000000002	--