

**Dr. Duke's Phytochemical and Ethnobotanical Database**

**Chemicals Found in Calendula officinalis**

<b>Activity Count</b>	<b>Chemical</b>	<b>Plant Part</b>	<b>Low PPM</b>	<b>High PPM</b>	<b>StdDev</b>	<b>Reference Citation</b>
0	12-URSENE-3,6,21-TRIOL	Plant	--	--		
0	2,4-METHYLENE-CHOLESTEROL	Flower	--	--		
0	24-METHYLCHOLEST-5,22-DIEN-3-BETA-OL	Sprout Seedling	--	--		
0	24-METHYLCHOLEST-7-EN-7-BETA-OL	Sprout Seedling	--	--		
0	28-ISOFUCOSTEROL	Flower	--	--		
0	4-ALPHA-METHYL-24-METHYLENE-CHOLEST-7EN-3BETA-OL	Plant	--	--		
0	4-ALPHA-METHYLSTIGMASTA-7,24(28)-DIEN-3BETA-OL	Plant	--	--		
0	4-BETA-METHYLERGOSTA-7,24(28)-DIEN-3-BETA-OL	Flower	--	--		
0	4-BETA-METHYLSTIGMASTA-7,24(28)-DIEN-3BETA-OL	Plant	--	--		
0	5-PHYTYLTOLUQUINONE	Plant	--	--		
0	6-PHYTYLTOLUQUINONE	Plant	--	--		
0	7-METHYLTOCOL	Plant	--	--		
0	8-METHYL-TOCOL	Plant	--	--		
0	9'-CIS-LUTEIN	Flower	--	--		
0	9-HYDROXY-TRANS-10,CIS-12-OCTADECADIENIC-ACID	Seed	--	--		
0	ALKALOIDS	Plant	190000	190000	4.845499988585718	
10	ALPHA-AMYRIN	Flower	--	--		
32	ALPHA-TOCOPHEROL	Leaf	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALPHA-TOCOPHEROLQUINONE	Plant	--	--		
0	ARNADIOL	Flower	--	--		
112	ASCORBIC-ACID	Flower	1330	3100	0.11959038436316784	
0	AUROCHROME	Flower	--	--		
0	AUROXANTHIN	Flower	--	--		
9	BETA-AMYRIN	Flower	--	--		
47	BETA-SITOSTEROL	Flower	--	--		
0	BREIN	Flower	--	--		
102	CAFFEIC-ACID	Plant	--	--		
28	CALCIUM	Leaf	30400	30400	0.8173912787097098	
0	CALENDINE	Flower	100	100		
0	CALENDOL	Plant	--	--		
0	CALENDRIN	Plant	--	--		
0	CALENDULADIOL	Flower	--	--		
0	CALENDULOSIDES	Root	--	--		
0	CAMPESTANOL	Shoot	--	--		
2	CAMPESTEROL	Flower	--	--		
0	CAROTENOIDS	Flower	30000	30000		
31	CARYOPHYLLENE	Flower	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CERYL-ALCOHOL	Flower	--	--		
77	CHLOROGENIC-ACID	Flower	--	--		
0	CHOLEST-7-EN-3-BETA-OL	Sprout Seedling	--	--		
0	CHOLESTANOL	Sprout Seedling	--	--		
1	CHOLESTEROL	Flower	--	--		
0	CHRYSANTHEMAXANTHIN	Flower	--	--		
0	CIS-FLAVOXANTHIN	Flower	--	--		
0	CIS-LUTEOXANTHIN	Flower	--	--		
0	CITROXANTHIN	Plant	--	--		
1	DIMORPHECOLIC-ACID	Seed	--	--		
0	EO	Flower	200	4000	-0.29015360760420156	
0	ERYTHRODIOL	Flower	--	--		
2	FARADIOL	Flower	--	--		
0	FAT	Seed	260000	450000	0.9724195926436688	
0	FLAVOCHROME	Flower	--	--		
0	FLAVOCHROME	Plant	--	--		
0	FLAVONOIDS	Flower	3300	8000	-0.8781392402034289	
0	FLAVOXANTHIN	Flower	--	--		
0	FUCOSTANOL	Plant	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	GALACTOSE	Flower	--	--		
14	GAMMA-TOCOPHEROL	Leaf	--	--		
8	GENTISIC-ACID	Flower	--	--		
0	HELIANTRIOL-C	Flower	--	--		
0	HELIANTRIOL-F	Flower	--	--		
19	INULIN	Root	--	--		
1	ISORHAMNETIN-3-GLUCOSIDE	Flower	--	--		
0	ISORHAMNETIN-3-O-RUTINOSIDE	Flower	--	--		
2	ISORHAMNETIN-3-RUTINOSIDE	Flower	--	--		
75	KAEMPFEROL	Plant	--	--		
0	LAPENETRIOL	Flower	--	--		
7	LAURIC-ACID	Plant	10000	17500	1.71672185861966	
27	LINOLEIC-ACID	Seed	100000	177500	0.6030040062751071	
0	LINOLENIC-ACID	Seed	18600	32200	-0.017729945554310577	
0	LONGISPINOGENINE	Flower	--	--		
0	LUP-20(29)-ENE-3BETA,16BETA,28-TRIOL	Flower	--	--		
21	LUPEOL	Flower	--	--		
15	LUTEIN	Flower	--	--		
0	LUTEIN-EPOXIDE	Flower	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	LUTEOXANTHIN	Flower	--	--		
16	LYCOPENE	Flower	--	--		
15	MALIC-ACID	Flower	6400	6400	-1	
0	MANILADIOL	Flower	--	--		
0	METHYL-PENTOSE	Flower	--	--		
3	MUCILAGE	Flower	15000	15000	-1.6128887758414006	
0	MUTATOCHROME	Plant	--	--		
0	MUTAXANTHIN	Flower	--	--		
6	MYRISTIC-ACID	Seed	10300	16100	-0.08524029367925882	
0	NARCISSIN	Flower	--	--		
0	NEOLYCOPENE	Flower	--	--		
0	OLEAN-12-ENE-3BETA,16BETA,28-TRIOL	Flower	--	--		
64	OLEANOLIC-ACID	Flower	--	--		
18	OLEIC-ACID	Seed	42300	73000	-0.37899734969890375	
25	P-COUMARIC-ACID	Plant	--	--		
13	P-HYDROXY-BENZOIC-ACID	Flower	--	--		
0	P-HYDROXYPHENYLACETIC-ACID	Flower	--	--		
13	PALMITIC-ACID	Seed	38900	67000	0.6828263466537076	
2	PALMITOLEIC-ACID	Seed	12000	20500	0.1936260374258411	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	PENTADECANOIC-ACID	Flower	--	--		
0	PHYTOFLUENE	Flower	--	--		
0	PLASTOQUINONE	Plant	--	--		
0	PROTEIN	Flower	6400	6400	-1.582397698741256	
0	PSEUDOTARAXASTEROL	Flower	--	--		
0	PSI-TARAXASTEROL	Flower	--	--		
0	PYROGALLOL-TANNIN	Flower	--	--		
176	QUERCETIN	Plant	--	--		
0	RESIN	Flower	34000	34000		
1	RUBIXANTHIN	Plant	--	--		
87	RUTIN	Flower	--	--		
34	SALICYLIC-ACID	Plant	0.34	0.34	-0.7273973384287522	
0	SAPONIN	Flower	--	--		
0	SAPONOSIDES	Plant	--	--		
0	STIGMAST-7-EN-3-BETA-OL	Sprout Seedling	--	--		
0	STIGMASTANOL	Sprout Seedling	--	--		
12	STIGMASTEROL	Flower	--	--		
6	SYRINGIC-ACID	Flower	--	--		
35	TANNIN	Leaf	64500	64500	-0.561937386622043	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	TARAX-20-ENE-3BETA,16BETA,22ALPHA-TRIOL	Flower	--	--		
0	TARAX-20-ENE-3BETA,16BETA,30-TRIOL	Flower	--	--		
2	TARAXASTEROL	Flower	--	--		
0	TRANS-8,TRANS-10,CIS-12-OCTADECATRIENIC-ACID	Seed	--	--		
8	UBIQUINONE	Root	--	--		
0	URONIC-ACID	Flower	--	--		
0	URSA-12-ENE-3BETA,16BETA,21-TRIOL	Plant	--	--		
0	URSADIOL	Plant	--	--		
0	URSATRIOL	Flower	--	--		
24	VANILLIC-ACID	Flower	--	--		
2	VIOLAXANTHIN	Plant	--	--		
0	ZETA-CAROTENE	Flower	--	--		