

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Hyssopus officinalis*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
35	TANNIN	Plant	50000.0	80000.0	-0.053082229266390064	Lawrence Review of Natural Products, Jan-87.
31	HESPERIDIN	Plant	50000.0	60000.0		--
34	DIOSMIN	Plant	30000.0	60000.0	1.1355499479153381	--
67	1,8-CINEOLE	Shoot	488.0	610.0	-0.1268500303308429	Indian Perfumer, 35: 51.
4	PINOCAMPHONE	Flower	200.0	2060.0		--
41	CAMPHOR	Flower	125.0	1240.0	-0.4037256527367186	--
13	BETA-PINENE	Leaf	66.0	4580.0	6.3263317984661365	--
76	EUGENOL	Flower	62.0	624.0	-0.37203893797995374	Flavour and Fragrance Journal, 6: 72.
3	BETA-PHELLANDRENE	Flower	34.0	348.0		Flavour and Fragrance Journal, 6: 69.
5	SABINENE	Leaf	28.0	380.0	-0.019095817088093343	--
22	MYRCENE	Shoot	27.0	400.0	0.11420850874501413	--
5	MYRTENAL	Shoot	24.0	30.0	-0.28722839924002375	Indian Perfumer, 35: 52.
4	PINOCAMPHONE	Leaf	24.0	13820.0		--
2	ELEMOL	Flower	21.0	215.0		Flavour and Fragrance Journal, 6: 72.
2	MYRTENOL	Flower	16.0	160.0		--
9	DELTA-CADINENE	Plant	14.0	420.0	2.4375748902835204	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
11	ALPHA-PHELLANDRENE	Flower	12.0	120.0	-1.0	Flavour and Fragrance Journal, 6: 69.
5	SABINENE	Flower	10.0	100.0	-0.43270519325643764	--
41	CAMPHOR	Leaf	10.0	3280.0	-0.17537277359849665	--
2	GERMACRENE-D	Flower	10.0	200.0	0.6421278095722747	--
20	METHYL-EUGENOL	Shoot	7.0	100.0	-0.562321857612429	--
60	LIMONENE	Leaf	7.0	480.0	0.05717611233764573	--
20	METHYL-EUGENOL	Plant	7.0	100.0	-0.5641652169732609	--
9	CAMPHENE	Leaf	6.0	80.0	-0.162453933589436	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
16	P-CYMENE	Plant	6.0	180.0	-0.3733987842290206	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
11	ALPHA-PHELLANDRENE	Leaf	5.0	320.0	-0.08738448361690086	--
60	LIMONENE	Flower	5.0	54.0	-0.5756715791109762	Flavour and Fragrance Journal, 6: 69.
10	CUMINALDEHYDE	Shoot	4.0	7.0	-0.2854659339161764	Indian Perfumer, 35: 52.
2	GERMACRENE-D	Leaf	4.0	3100.0	1.9841064805574304	--
9	BENZYL-ALCOHOL	Flower	3.0	32.0	-0.7063856201770791	Flavour and Fragrance Journal, 6: 72.
4	ISOPINOCAMPHONE	Leaf	3.0	6520.0		--
35	BORNEOL	Shoot	3.0	4.0	-0.394923705122541	Indian Perfumer, 35: 52.
71	THYMOL	Shoot	2.0	3.0	-0.33238938578824073	Indian Perfumer, 35: 52.
76	EUGENOL	Leaf	2.0	443.0	-0.764139250926167	--
23	TERPINEN-4-OL	Flower	2.0	28.0	-0.877935181573476	Flavour and Fragrance Journal, 6: 72.
12	ESTRAGOLE	Flower	2.0	18.0		Flavour and Fragrance Journal, 6: 69.
11	GAMMA-TERPINENE	Leaf	1.0	60.0	-0.2562362491576039	--
6	FURFURAL	Shoot	1.0	2.0	1.0	Indian Perfumer, 35: 51.
9	TERPINOLENE	Leaf	1.0	20.0	-0.20661710588269624	--
23	TERPINEN-4-OL	Leaf	1.0	790.0	0.11076020391043574	Flavour and Fragrance Journal, 6: 72.
13	ALPHA-TERPINENE	Leaf	1.0	1880.0	0.6590992695708332	--
12	ESTRAGOLE	Leaf	1.0	80.0	-0.8780569046390017	Flavour and Fragrance Journal, 6: 69.
6	METHYL-CHAVICOL	Shoot	1.0	960.0	1.6431262740379204	--
2	ALPHA-HUMULENE	Leaf	1.0	140.0	-0.23026576726663947	--
2	ALPHA-HUMULENE	Flower	1.0	12.0	-0.8529274950889835	--
3	BETA-PHELLANDRENE	Leaf	1.0	800.0	1.4464464977775597	--
10	NEROL	Leaf	0.8	9.0	-0.2680817417810032	Flavour and Fragrance Journal, 6: 72.
10	NEROL	Flower	0.8	8.0	-1.1381482713893585	Flavour and Fragrance Journal, 6: 72.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
13	BETA-IONONE	Flower	0.6	6.0	-0.5924279733807828	Flavour and Fragrance Journal, 6: 72.
35	GERANIOL	Flower	0.5	6.0	-0.5144293278566698	Flavour and Fragrance Journal, 6: 72.
2	MYRTENOL	Leaf	0.5	520.0	4.047540790648524	--
2	ELEMOL	Leaf	0.4	608.0	-0.3001877753948351	Flavour and Fragrance Journal, 6: 72.
23	ALPHA-TERPINEOL	Flower	0.3	3.0	-0.7017091422809357	Flavour and Fragrance Journal, 6: 72.
13	BETA-IONONE	Leaf	0.3	4.0	-0.8302186598528475	Flavour and Fragrance Journal, 6: 72.
53	LINALOOL	Leaf	0.2	160.0	-0.5366457589382241	--
9	BENZYL-ALCOHOL	Leaf	0.1	30.0	1.601098364560363	Flavour and Fragrance Journal, 6: 72.
53	LINALOOL	Flower	0.1	1.0	-0.5919295131645452	Flavour and Fragrance Journal, 6: 72.
23	ALPHA-TERPINEOL	Leaf	0.1	360.0	0.041693203276555756	--
28	ALPHA-PINENE	Leaf	0.1	1460.0	-0.12975468398012238	--
35	GERANIOL	Leaf	0.1	2.0	-0.22954672153632943	Flavour and Fragrance Journal, 6: 72.
89	URSOLIC-ACID	Plant		4900.0	-0.5616031801935085	--
4	PINOCAMPHONE	Shoot		270.0	-0.3244263368113564	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
13	BETA-PINENE	Shoot		780.0	-0.06646293799852712	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
53	LINALOOL	Essential Oil				--
2	TRANS-PINOCARVEOL	Shoot		40.0	-0.19425486566146222	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
19	D-LIMONENE	Shoot		60.0	1.7371980724307592	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
6	ALPHA-THUJONE	Shoot		10.0	-0.2770334359740345	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	GERMACRENE-D	Essential Oil				--
4	ISOPINOCAMPHONE	Shoot		2220.0	0.3911193598367336	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	EUGENOL-METHYL-ETHER	Shoot		30.0	0.20203050891044186	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	BETA-THUJONE	Shoot				Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	SABINENE	Shoot		80.0	-0.21074213340388603	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	NONANOIC-ACID	Plant				--
3	BETA-PHELLANDRENE	Shoot		60.0	-0.3672741394870935	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	GERMACRENE-D	Shoot		950.0	0.1621006930037406	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
3	ESTRAGOL	Shoot				Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
9	CAMPHENE	Shoot		40.0	-0.13058578979385044	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
1	PINOCARVONE	Shoot		2620.0	2.1961571564067977	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	MYRTENOL	Shoot		260.0	0.18213108633003047	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	BETA-MYRCENE	Shoot		50.0	-0.2584497253884143	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
28	ALPHA-PINENE	Shoot		30.0	-0.144456548398003	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	PINOCAMPHONE	Shoot		140.0	-0.32508253152371885	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
13	BETA-PINENE	Shoot		790.0	-0.06576245789569621	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
8	INOSITOL	Leaf		433.3		--
2	TRANS-PINOCARVEOL	Shoot		40.0	-0.19425486566146222	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
19	D-LIMONENE	Shoot		40.0	-0.6681531047810612	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
6	ALPHA-THUJONE	Shoot		20.0	-0.2729422248942492	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
76	EUGENOL	Essential Oil				--
4	ISOPINOCAMPHONE	Shoot		1410.0	-0.15066977462621298	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	EUGENOL-METHYL-ETHER	Shoot		20.0	-0.40406101782088455	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
5	BETA-THUJONE	Shoot				Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	SABINENE	Shoot		150.0	-0.1362096936828808	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
3	BETA-PHELLANDRENE	Shoot		50.0	-0.41095175381586924	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	GERMACRENE-D	Shoot		1030.0	0.20695059257020465	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
3	ESTRAGOL	Shoot		40.0	0.8440949857039474	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
9	CAMPHENE	Shoot		30.0	-0.13150842238318472	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
1	PINOCARVONE	Shoot		2550.0	2.120571217891708	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	BETA-MYRCENE	Shoot		70.0	-0.21760278603105	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
28	ALPHA-PINENE	Shoot		20.0	-0.14545386782429234	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	TERPINYL-ACETATE	Plant				--
4	PINOCAMPHONE	Shoot		160.0	-0.3249815784910477	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
13	BETA-PINENE	Shoot		930.0	-0.055955736456063415	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
24	BENZALDEHYDE	Shoot				Indian Perfumer, 35: 51.
41	CAMPHOR	Essential Oil				--
2	TRANS-PINOCARVEOL	Shoot		60.0	-0.18541525492853406	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
19	D-LIMONENE	Shoot		60.0	1.7371980724307592	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
12	ESTRAGOLE	Essential Oil				--



Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	ISOPINOCAMPHONE	Shoot		1380.0	-0.1707360388655814	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	EUGENOL-METHYL-ETHER	Shoot		50.0	1.4142135623730947	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	BETA-THUJONE	Shoot				Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	SABINENE	Shoot		110.0	-0.178799659237741	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
3	BETA-PHELLANDRENE	Shoot		290.0	0.6373109900747495	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
3	ESTRAGOL	Shoot		20.0	-0.6349200080201161	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
9	CAMPHENE	Shoot		40.0	-0.13058578979385044	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	PINOCARVONE	Shoot		2530.0	2.098975235458825	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	BETA-THUJONE	Shoot		20.0	-0.313491451572943	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	BETA-MYRCENE	Shoot		120.0	-0.11548543763763912	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
28	ALPHA-PINENE	Shoot		40.0	-0.1434592289717137	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	TERPINYL-ACETATE	Shoot				--
2	GERMACRENE-D	Shoot		1550.0	0.4984749397522208	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
4	PINOCAMPHONE	Shoot		1970.0	-0.31584532903430923	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
13	BETA-PINENE	Shoot		1050.0	-0.04754997522209245	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	ALPHA-THUJONE	Shoot		20.0	-0.2729422248942492	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
9	CAMPHENE	Essential Oil				--
2	TRANS-PINOCARVEOL	Shoot		60.0	-0.18541525492853406	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
61	FERULIC-ACID	Plant				Jim Duke's personal files.
19	D-LIMONENE	Shoot		50.0	0.5345224838248486	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
34	DIOSMIN	Leaf				--
4	ISOPINOCAMPHONE	Shoot		3260.0	1.086749853468171	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	SABINENE	Shoot		70.0	-0.2213896247926011	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	MYRTENOL	Shoot		260.0	0.18213108633003047	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	BETA-PHELLANDRENE	Shoot		330.0	0.8120214473898526	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
3	ESTRAGOL	Shoot		30.0	0.10458748884191567	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
9	CAMPHENE	Shoot		40.0	-0.13058578979385044	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
1	PINOCARVONE	Shoot		570.0	-0.017431042963683897	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	BETA-THUJONE	Shoot				Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	BETA-MYRCENE	Shoot		90.0	-0.17675584667368563	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	GERMACRENE-D	Shoot		990.0	0.18452564278697262	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	PINOCAMPHONE	Shoot		1950.0	-0.3159462820669804	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
13	BETA-PINENE	Shoot		1080.0	-0.04544853491359971	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
6	ALPHA-THUJONE	Shoot				Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
18	TERPINEOL	Essential Oil				--
5	EUGENOL-METHYL-ETHER	Shoot		40.0	0.8081220356417683	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
19	D-LIMONENE	Shoot		40.0	-0.6681531047810612	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
34	DIOSMIN	Shoot				--
4	ISOPINOCAMPHONE	Shoot		2940.0	0.8727097015815748	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	SABINENE	Shoot		90.0	-0.2000946420151711	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	MYRTENOL	Shoot		240.0	0.14877125069093244	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
3	BETA-PHELLANDRENE	Shoot		380.0	1.0304095190337315	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
3	ESTRAGOL	Shoot		0.1	-2.106539926775559	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
9	CAMPHENE	Shoot		20.0	-0.132431054972519	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
1	PINOCARVONE	Shoot		560.0	-0.02822903418012527	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	BETA-THUJONE	Shoot		20.0	-0.313491451572943	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	BETA-MYRCENE	Shoot		130.0	-0.09506196795895694	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	TRANS-PINOCARVEOL	Shoot		70.0	-0.18099544956207	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	GERMACRENE-D	Shoot		670.0	0.005126044521116516	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
4	PINOCAMPHONE	Shoot		691000.0	3.1621380760355877	--
13	BETA-PINENE	Shoot		1750.0	0.0014836319760715047	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
6	ALPHA-THUJONE	Shoot		10.0	-0.2770334359740345	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
57	ROSMARINIC-ACID	Inflorescence				--
5	EUGENOL-METHYL-ETHER	Shoot		30.0	0.20203050891044186	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
19	D-LIMONENE	Shoot		40.0	-0.6681531047810612	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
13	BETA-PINENE	Essential Oil		102000.0	1.5344583642563674	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	ISOPINOCAMPHONE	Shoot		130.0	-1.0068303821725977	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	MYRTENOL	Shoot		210.0	0.09873149723228541	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
3	BETA-PHELLANDRENE	Shoot		280.0	0.5936333757459736	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
28	ALPHA-PINENE	Shoot		40.0	-0.1434592289717137	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
9	CAMPHENE	Shoot		20.0	-0.132431054972519	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
1	PINOCARVONE	Shoot		530.0	-0.06062300782944939	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	BETA-THUJONE	Shoot		20.0	-0.313491451572943	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.



Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	BETA-MYRCENE	Shoot		120.0	-0.11548543763763912	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	TRANS-PINOCARVEOL	Shoot		60.0	-0.18541525492853406	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	GERMACRENE-D	Shoot		900.0	0.1340695057747006	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
13	BETA-PINENE	Shoot		620.0	-0.07767061964382173	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
6	ALPHA-THUJONE	Shoot				Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
1	PINOCARVONE	Essential Oil		203000.0		--
5	EUGENOL-METHYL-ETHER	Shoot		10.0	-1.010152544552211	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
3	BETA-PHELLANDRENE	Essential Oil				--
2	MYRTENOL	Shoot		220.0	0.11541141505183443	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	BETA-PHELLANDRENE	Shoot		190.0	0.20053484678699166	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
28	ALPHA-PINENE	Shoot				Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
9	CAMPHENE	Shoot		115000.0	10.475998457193025	--
1	PINOCARVONE	Shoot		170.0	-0.44935069162133884	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	BETA-THUJONE	Shoot		20.0	-0.313491451572943	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	BETA-MYRCENE	Shoot		70.0	-0.21760278603105	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	TRANS-PINOCARVEOL	Shoot		90.0	-0.17215583882914187	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	GERMACRENE-D	Shoot		920.0	0.1452819806663166	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
13	BETA-PINENE	Shoot		520.0	-0.08467542067213087	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
6	ALPHA-THUJONE	Shoot				Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
4	PINOCAMPHONE	Essential Oil		440000.0		--
8	MARRUBIIN	Plant				--
5	EUGENOL-METHYL-ETHER	Shoot		50.0	1.4142135623730947	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
20	CHOLINE	Plant				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
5	SABINENE	Shoot		90.0	-0.2000946420151711	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
9	BENZYL-ALCOHOL	Essential Oil				--
12	IODINE	Plant		0.014	-0.4477493394460826	--
3	ESTRAGOL	Shoot		40.0	0.8440949857039474	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
57	ROSMARINIC-ACID	Plant		5000.0	-1.4207683050352211	Fitoterapia No.62: 166.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	MYRTENOL	Shoot		200.0	0.08205157941273641	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
3	BETA-PHELLANDRENE	Shoot		330.0	0.8120214473898526	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
28	ALPHA-PINENE	Shoot		60.0	-0.14146459011913506	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
4	PINOCAMPHONE	Shoot		4620.0	-0.3024690522053827	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	BETA-THUJONE	Shoot				Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	BETA-MYRCENE	Shoot		80.0	-0.1971793163523678	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
13	DIOSMETIN	Essential Oil				Gruenwald, J. et al. 1998. PDR for Herbal Medicine. 1st ed. Medical Economics Co., Montvale, NJ. 1244 pp. (abbreviated as PHR or Physicians Herbal Reference in my mind)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	TRANS-PINOCARVEOL	Shoot		40.0	-0.19425486566146222	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
19	D-LIMONENE	Shoot		40.0	-0.6681531047810612	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
6	PHENETHYL-ALCOHOL	Plant				Planta Medica, 55: 226.
13	BETA-PINENE	Shoot		168000.0	11.646965341540012	--
6	ALPHA-THUJONE	Shoot				Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
16	P-CYMENE	Essential Oil				--
4	ISOPINOCAMPHONE	Shoot		130.0	-1.0068303821725977	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	EUGENOL-METHYL-ETHER	Shoot		40.0	0.8081220356417683	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
37	CARVACROL	Plant		1.0	-0.8666583045604165	--
5	SABINENE	Shoot		80.0	-0.21074213340388603	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
28	ALPHA-PINENE	Essential Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	ESTRAGOL	Shoot				Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
1	PINOCARVONE	Shoot		170.0	-0.44935069162133884	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	MYRTENOL	Shoot		250.0	0.16545116851048147	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
28	ALPHA-PINENE	Shoot		40.0	-0.1434592289717137	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
4	PINOCAMPHONE	Shoot		4600.0	-0.3025700052380539	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	BETA-THUJONE	Shoot		0.1	-0.3181087855129189	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
1	MYRTENYL-ACETATE	Plant				--
2	3-OCTANOL	Plant				Planta Medica, 55: 226.
2	TRANS-PINOCARVEOL	Shoot		50.0	-0.18983506029499814	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
19	D-LIMONENE	Shoot		40.0	-0.6681531047810612	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
6	ALPHA-THUJONE	Shoot		20.0	-0.2729422248942492	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	MYRTENOL	Essential Oil				--
4	ISOPINOCAMPHONE	Shoot		200.0	-0.9600090989474048	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	EUGENOL-METHYL-ETHER	Shoot		20.0	-0.40406101782088455	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
102	CAFFEIC-ACID	Plant				Jim Duke's personal files.
5	SABINENE	Shoot		110.0	-0.178799659237741	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
11	ALPHA-PHELLANDRENE	Essential Oil				--
2	GERMACRENE-D	Shoot		920.0	0.1452819806663166	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	ESTRAGOL	Shoot		40.0	0.8440949857039474	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
9	CAMPHENE	Shoot		20.0	-0.132431054972519	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
1	PINOCARVONE	Shoot		220.0	-0.395360735539132	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	MYRTENOL	Shoot		190.0	0.0653716615931874	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
28	ALPHA-PINENE	Shoot		70.0	-0.14046727069284576	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
3	XANTHOPHYLL	Plant		3556.0		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
4	PINOCAMPHONE	Shoot		4870.0	-0.30120713929699344	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
47	BETA-SITOSTEROL	Plant				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
5	BETA-ELEMENE	Plant				--



Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	TRANS-PINOCARVEOL	Shoot		60.0	-0.18541525492853406	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
19	D-LIMONENE	Shoot		40.0	-0.6681531047810612	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
3	BETA-PHELLANDRENE	Shoot		50.0	-0.41095175381586924	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
6	ALPHA-THUJONE	Shoot		10.0	-0.2770334359740345	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
4	ISOPINOCAMPHONE	Essential Oil		381000.0		--
4	ISOPINOCAMPHONE	Shoot		110.0	-1.02020789166551	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
5	EUGENOL-METHYL-ETHER	Shoot		30.0	0.20203050891044186	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
12	BORNYL-ACETATE	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
5	SABINENE	Shoot		110.0	-0.178799659237741	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
64	OLEANOLIC-ACID	Plant				--
2	GERMACRENE-D	Shoot		970.0	0.1733131678953566	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
3	ESTRAGOL	Shoot		30.0	0.10458748884191567	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
9	CAMPHENE	Shoot		40.0	-0.13058578979385044	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
1	PINOCARVONE	Shoot		120.0	-0.5033406477035457	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	MYRTENOL	Shoot		170.0	0.032011825954089385	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
2	BETA-MYRCENE	Shoot		80.0	-0.1971793163523678	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
28	ALPHA-PINENE	Shoot		80.0	-0.13946995126655645	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
67	1,8-CINEOLE	Essential Oil		122000.0	-0.2995646683900661	--