

Dr. Duke's Phytochemical and Ethnobotanical Database

Chemicals Found in *Lycopersicon esculentum*

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	4-VINYLGUAIACOL	Leaf	--	--		
4	4-VINYLGUAIACOL	Seed	--	--		
15	5-HYDROXYTRYPTAMINE	Fruit	--	--		
6	ACETALDEHYDE	Fruit	--	--		
16	ACETIC-ACID	Fruit	--	--		
3	ACETONE	Fruit	--	--		
28	ADENOSINE	Flower	--	--		
3	ALANINE	Fruit	30	4132	0.16684043618350175	
10	ALPHA-AMYRIN	Fruit	--	--		
15	ALPHA-LINOLENIC-ACID	Fruit	30	496	-0.9278481523791202	
28	ALPHA-PINENE	Fruit	--	--		
32	ALPHA-TOCOPHEROL	Fruit	7	143	1.0794849431920743	
5	ALUMINUM	Fruit	0.3	1700	0.2710454015000243	
14	ARGININE	Fruit	1	3637	-0.1794507969292052	
2	ARSENIC	Fruit	0.003	0.043	-0.4818181208539938	
112	ASCORBIC-ACID	Fruit	50	2952	-0.10094252293657557	
2	ASPARAGINE	Fruit	300	300	-0.7333785819554481	
3	ASPARTIC-ACID	Fruit	1230	20332	1.3365457848440367	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
24	BENZALDEHYDE	Fruit	--	--		
9	BENZYL-ALCOHOL	Fruit	--	--		
2	BETA-ALANINE	Fruit	6	6		
9	BETA-AMYRIN	Fruit	--	--		
53	BETA-CAROTENE	Fruit	7	113	0.0676263349229542	
47	BETA-SITOSTEROL	Fruit	--	--		
14	BETAINE	Root	23	23	-0.3665186816680227	
14	BETAINE	Shoot	69	69	-0.462299088318912	
4	BIOTIN	Fruit	--	--		
4	BORON	Fruit	--	96	1.1289380646493836	
3	CADMIUM	Fruit	0.005	1.7	4.352550688720398	
102	CAFFEIC-ACID	Fruit	6	6	-0.33780275264769194	
28	CALCIUM	Fruit	60	2400	-0.3360531950126499	
28	CALCIUM	Leaf	60800	60800	2.894551698483533	
2	CAMPESTEROL	Fruit	--	--		
5	CAPRYLIC-ACID	Fruit	--	--		
1	CELLULOSE	Fruit	--	--		
7	CHLORINE	Fruit	510	510	-0.3346338596732354	
77	CHLOROGENIC-ACID	Fruit	18	18	-1.090975910295016	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
21	CHLOROPHYLL	Fruit	3	30	-0.7928072718421142	
20	CHOLINE	Root	36	36	-0.4093082994350739	
20	CHOLINE	Shoot	48	48	-0.7037260640737851	
24	CHROMIUM	Fruit	--	3	-0.08625884480319124	
60	CINNAMALDEHYDE	Fruit	--	--		
53	CITRAL	Fruit	--	--		
23	CITRIC-ACID	Fruit	--	--		
1	CITROSTADIENOL	Seed	--	--		
2	COBALT	Fruit	--	1.4	-0.36563225462787763	
12	COPPER	Fruit	0.4	100	6.785252397648407	
7	CYCLOARTENOL	Seed	--	--		
3	CYCLOEUCALENOL	Seed	--	--		
2	CYSTINE	Fruit	120	1984	0.9938328503061883	
2	DIACETYL	Fruit	--	--		
1	DIHYDROZEATIN	Flower	--	--		
24	ETHANOL	Fruit	--	--		
1	ETHYLENE	Fruit	--	--		
76	EUGENOL	Fruit	--	--		
13	FALCARINDIOL	Seed	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
16	FALCARINOL	Seed	--	--		
2	FARNESAL	Fruit	--	--		
61	FERULIC-ACID	Fruit	--	--		
15	FIBER	Fruit	4700	77691	-0.6037968147292118	
15	FOLACIN	Fruit	--	2	-0.019192793995839758	
13	FORMIC-ACID	Fruit	--	--		
8	FRUCTOSE	Fruit	11700	11700	-0.753158464748984	
7	FUMARIC-ACID	Fruit	--	--		
6	FURFURAL	Fruit	--	--		
22	GABA	Fruit	220	480	-0.5811047507123629	
2	GAMMA-CAROTENE	Fruit	--	--		
8	GENTISIC-ACID	Leaf	--	--		
2	GERANYL-ACETONE	Fruit	--	--		
7	GLUCOSE	Fruit	16300	16300	-0.7221100985577108	
8	GLUTAMIC-ACID	Fruit	90	54053	3.1763013494537677	
3	GLYCERIC-ACID	Fruit	--	--		
12	GLYCINE	Fruit	23	3637	0.012539998861881632	
4	GLYCOLIC-ACID	Fruit	--	--		
18	GUAIACOL	Fruit	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	HISTIDINE	Fruit	30	2149	0.30596189437483906	
7	INDOLE-3-ACETIC-ACID	Root	--	--		
12	IODINE	Fruit	--	--		
6	IRON	Fruit	1	800	2.6458962013920013	
3	ISOLEUCINE	Fruit	210	3471	-0.05009901385256443	
1	ISOVALERALDEHYDE	Fruit	0.006	0.006		
75	KAEMPFEROL	Seed	--	--		
8	LACTIC-ACID	Fruit	--	--		
1	LANOSTEROL	Seed	--	--		
2	LEUCINE	Fruit	330	5455	0.0752243388245229	
27	LINOLEIC-ACID	Fruit	830	13720	-0.16183148310656464	
11	LITHIUM	Fruit	0.28	0.68	-0.20051020792681978	
21	LUPEOL	Plant	--	--		
15	LUTEIN	Fruit	--	--		
16	LYCOPENE	Fruit	1	20	-0.9687150627932989	
4	LYSINE	Fruit	20	5455	0.34718888553826305	
65	MAGNESIUM	Fruit	70	6000	1.792156703535766	
65	MAGNESIUM	Leaf	4300	4300	0.06728634027474291	
15	MALIC-ACID	Fruit	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	MANGANESE	Fruit	0.6	100	0.2558494650725795	
1	MERCURY	Fruit	0.001	0.002	-0.7398287649593115	
2	METHANOL	Fruit	--	--		
15	METHIONINE	Fruit	16	1322	0.44760045063490406	
21	METHYL-SALICYLATE	Fruit	--	--		
2	MOLYBDENUM	Fruit	--	6	0.7172922262165865	
6	MYRISTIC-ACID	Fruit	--	--		
3	N-HENTRIACONTANE	Fruit	--	--		
6	NARCOTINE	Fruit	--	--		
56	NARINGENIN	Fruit	--	--		
2	NEO-CHLOROGENIC-ACID	Leaf	--	--		
2	NEOXANTHIN	Fruit	--	--		
39	NIACIN	Fruit	6	99	0.5120297557575215	
3	NICKEL	Fruit	0.01	5	0.7411420124402034	
1	NICOTIANAMINE	Leaf	--	--		
2	NONACOSANE	Fruit	--	--		
6	O-CRESOL	Fruit	--	--		
18	OLEIC-ACID	Fruit	310	5124	-0.4412527769086485	
9	OXALIC-ACID	Fruit	36	263	-0.29184659005431485	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
25	P-COUMARIC-ACID	Fruit	--	--		
4	P-HYDROXYBENZALDEHYDE	Plant	--	--		
13	PALMITIC-ACID	Fruit	210	3471	-0.3114994807565609	
2	PALMITOLEIC-ACID	Fruit	10	165	-0.31527384122418833	
11	PANTOTHENIC-ACID	Fruit	1	61	2.7361520161638526	
24	PECTIN	Fruit	100	31000	-0.26219655982605244	
26	PHENOL	Fruit	--	--		
2	PHENYL-ACETALDEHYDE	Fruit	--	--		
7	PHENYLALANINE	Fruit	72	3801	0.1648088706306435	
4	PHOSPHORUS	Fruit	110	8400	1.57458868730343	
4	PHOSPHORUS	Leaf	5500	5500	0.09724548038608762	
5	PHYLLOQUINONE	Plant	--	0.06	-0.8744617423558159	Booth, S. L., Suttie, J. W. 1998. Dietary intake and adequacy of vitamin K. J. Nutrition, 128(5): 785-788.
2	PHYTOSTEROLS	Fruit	70	1157	0.2726326213323643	
2	PIPECOLIC-ACID	Fruit	--	--		
14	POTASSIUM	Fruit	780	58800	3.617110820777692	
14	POTASSIUM	Leaf	47000	47000	0.7354883261537547	
6	PROPIONIC-ACID	Fruit	--	--		
1	PYRUVIC-ACID	Fruit	--	--		
176	QUERCETIN	Fruit	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	QUERCETIN-3-O-RHAMNOSIDE	Fruit	--	--		
44	QUERCITRIN	Fruit	--	--		
15	RIBOFLAVIN	Fruit	1	8	0.6405083179917069	
6	RISHITIN	Plant	--	--		
87	RUTIN	Fruit	--	--		
87	RUTIN	Leaf	24000	24000	0.4854288744261521	
5	SALICYLALDEHYDE	Fruit	--	--		
60	SELENIUM	Fruit	0.001	0.034	-0.37775603960259097	
1	SERINE	Fruit	57	3967	0.11438876561478017	
4	SILICON	Fruit	--	--		
3	SILVER	Fruit	--	1.4	3.2317499543193087	
1	SODIUM	Fruit	10	6600	0.4419198012294464	
26	SOLANINE	Fruit	--	--		
10	SQUALENE	Fruit	--	--		
5	STARCH	Fruit	120	10000	-0.44130528294778915	
8	STEARIC-ACID	Fruit	80	1322	-0.19154902378625838	
12	STIGMASTEROL	Fruit	--	--		
7	SUCCINIC-ACID	Fruit	--	--		
14	SUCROSE	Fruit	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	SULFUR	Fruit	107	2330	0.6371218913711442	
4	SYRINGALDEHYDE	Plant	--	--		
6	TARTARIC-ACID	Fruit	--	--		
31	THIAMIN	Fruit	1	10	0.5974378588358942	
4	THREONINE	Fruit	65	3637	0.2574391545243345	
2	TOMATIDINE	Plant	--	--		
6	TOMATINE	Flower	--	--		
6	TOMATINE	Leaf	6	8		
2	TRANS-ACONITIC-ACID	Fruit	--	--		
15	TRIGONELLINE	Root	14	14	-0.497475071194002	
4	TRYPTAMINE	Fruit	--	--		
29	TRYPTOPHAN	Fruit	1	1157	0.43023114372368443	
11	TYRAMINE	Fruit	--	--		
8	TYROSINE	Fruit	38	2479	0.02497639422190393	
2	UBIQUINONE-10	Tissue Culture	60	60		
3	VALINE	Fruit	1	3801	-0.13452560212320389	
16	VANADIUM	Fruit	--	6	-0.6496341484486877	
28	VANILLIN	Plant	--	--		
2	VIOLAXANTHIN	Fruit	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	XANTHOPHYLL	Fruit	--	--		
2	ZEATIN	Fruit	--	--		
5	ZEAXANTHIN	Fruit	--	--		
77	ZINC	Fruit	1	120	2.6986566422305542	