

## Dr. Duke's Phytochemical and Ethnobotanical Databases

### Chemicals found in Piper betel

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	CARBOHYDRATES	Leaf	61000.0	418000.0	-1.5416117849819475	--
0	PROTEIN	Leaf	31000.0	212000.0	0.0015457821246706465	--
0	SUGARS	Leaf	24000.0	56000.0	-0.8599112327418778	--
15	FIBER	Leaf	23000.0	157500.0	-0.04989641634679875	--
0	ASH	Leaf	23000.0	157500.0	0.6809357345336916	--
7	GLUCOSE	Leaf	14000.0	32000.0	-0.32640677414087715	--
35	TANNIN	Leaf	10000.0	20500.0	-1.0990873207502265	--
5	STARCH	Leaf	10000.0	31000.0	-0.12596694486365365	--
0	FAT	Leaf	8000.0	135000.0	1.5650078608579805	--
0	DIASTASE	Leaf	8000.0	18000.0		--
14	SUCROSE	Leaf	6000.0	25000.0	-0.08410495842358359	--
0	POTASSIUM-NITRATE	Leaf	2600.0	4200.0		--
28	CALCIUM	Leaf	2300.0	15750.0	-0.18360872621418833	--
0	EO	Leaf	2000.0	42000.0	2.6796928616823648	--
76	EUGENOL	Leaf	535.0	17850.0	1.2809856325817552	--
4	PHOSPHORUS	Leaf	400.0	2740.0	-0.4105585761191793	--
3	CHAVICOL	Leaf	100.0	7000.0	-1.0	--
5	EUGENOL-METHYL-ETHER	Leaf	80.0	6635.0	2.155709789419842	--
31	CARYOPHYLLENE	Leaf	60.0	5000.0	2.1210397339256697	--
4	CADINENE	Leaf	50.0	3800.0	-1.0	--
0	CINEOLE	Leaf	50.0	2600.0	-0.4616273718944627	--
0	ALLYL-CATECHOL	Leaf	50.0	2600.0		--
37	CARVACROL	Leaf	45.0	2350.0	3.222963257076183	--
112	ASCORBIC-ACID	Leaf	43.0	2130.0	-0.2462832387368517	--
6	IRON	Leaf	35.0	240.0	-0.31224113495189265	--
16	P-CYMENE	Leaf	25.0	1050.0	0.4722231642693859	--
53	BETA-CAROTENE	Leaf	19.0	175.0	-0.37582350890658794	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
39	NIACIN	Leaf	6.0	48.0	-0.6021070257489586	--
15	RIBOFLAVIN	Leaf	0.2	2.0	-0.16848655199175794	--
31	THIAMIN	Leaf	0.1	4.8	-0.7303840792256565	--
12	ESTRAGOLE	Leaf	0.0	6130.0	-0.27090395304983655	--
0	HAVIBETOL	Leaf	0.0	4000.0		--
1	4-ALLYL-PYROCATECHOL	Leaf				--
22	GABA	Plant				--
0	WATER	Leaf		854000.0	0.23130077727695397	--
0	TERPENENE	Leaf				--
9	OXALIC-ACID	Leaf				--
2	ASPARAGINE	Leaf				--
5	ORNITHINE	Leaf				--
25	ARECOLINE	Plant				--
3	HYDROXY-CHAVICOL	Leaf				--
1	ARECAIDINE	Plant				--
0	PYROCATECHIN	Plant				--