

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Boswellia serrata*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
60	LIMONENE	Essential Oil				--
53	LINALOOL	Essential Oil		15000.0	-0.5158876661912609	--
47	BETA-SITOSTEROL	Bark				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
35	GERANIOL	Resin, Exudate, Sap		1280.0		Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
35	GERANIOL	Essential Oil		8000.0	-0.590948793183161	--
30	BOSWELLIC-ACID	Resin, Exudate, Sap				--
28	ALPHA-PINENE	Essential Oil				--
28	ALPHA-PINENE	Resin, Exudate, Sap		9920.0	-1.1654001321985943	Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
23	TERPINEN-4-OL	Essential Oil				--
22	MYRCENE	Essential Oil				--
19	D-LIMONENE	Essential Oil		45000.0	0.8498619428795502	Jim Duke's personal files.
19	D-LIMONENE	Resin, Exudate, Sap		7200.0		Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
18	TERPINEOL	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
18	TERPINEOL	Essential Oil		10000.0	1.0	--
16	P-CYMENE	Essential Oil		140000.0	0.522446086716829	--
16	P-CYMENE	Resin, Exudate, Sap		22400.0	-1.0	Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
13	BETA-PINENE	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
13	PALMITIC-ACID	Essential Oil				--
13	ALPHA-TERPINENE	Essential Oil				--
13	BETA-PINENE	Essential Oil		62000.0	0.6462841768599185	--
12	ESTRAGOLE	Essential Oil		20000.0	-1.7240124631383356	--
11	ALPHA-PHELLANDRENE	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
10	ALPHA-AMYRIN	Resin, Exudate, Sap				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
10	ALPHA-BOSWELLIC-ACID	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
10	ALPHA-BOSWELLIC-ACID	Essential Oil				--
9	BETA-AMYRIN	Resin, Exudate, Sap				--
9	CAMPHENE	Essential Oil				--
9	BETA-BOSWELLIC-ACID	Essential Oil				--
9	BETA-BOSWELLIC-ACID	Resin, Exudate, Sap		63386.0	0.9999999999999999	--
8	GAMMA-BOSWELLIC-ACID	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
8	FRUCTOSE	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
7	GLUCOSE	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
7	DIPENTENE	Essential Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	DIPENTENE	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
7	LAURIC-ACID	Essential Oil				--
6	METHYL-CHAVICOL	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
5	ACETYL-BETA-BOSWELLIC-ACID	Resin, Exudate, Sap				--
4	CADINENE	Essential Oil		40000.0	1.396804651753834	--
4	ACETYL-11-KETO-BETA-BOSWELLIC-ACID	Resin, Exudate, Sap				--
4	CADINENE	Resin, Exudate, Sap		6400.0		Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
4	GLUCURONIC-ACID	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
3	BETA-PHELLANDRENE	Essential Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	ELEMOL	Resin, Exudate, Sap		2080.0		Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
2	ELEMOL	Essential Oil		12000.0	-1.0	--
2	TERPINEOL-ACETATE	Essential Oil		35000.0		--
1	D-GLUCOSE	Plant				--
1	GALACTOSE	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
1	RAFFINOSE	Plant				--
0	3-ALPHA-HYDROXYTIRUCALL-8,24-DIEN-21-OIC-ACID	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
0	BORNEOL-ACETATE	Essential Oil				--
0	D-LACTOSE	Plant				--
0	BASSORIN	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
0	11-KETO-BETA-BOSWELLIC-ACID	Resin, Exudate, Sap		23058.0	0.9999999999999999	--

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0	ARABINOSE	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
0	HEMICELLULOSE	Wood				--
0	3-ALPHA-HYDROXY-URS-9-12-DIEN-24-OIC-ACID	Resin, Exudate, Sap				--
0	D-GALACTOSE	Plant				--
0	(+)-ALPHA-PHELLANDRENE	Essential Oil				--
0	ALPHA-THUJENE	Resin, Exudate, Sap		80000.0	-1.0	Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
0	ALPHA-CAMPOLYTIC-ACID	Essential Oil				--
0	2-ALPHA-3-ALPHA-DIHYDROXY-URS-12-EN-24-OIC-ACID	Resin, Exudate, Sap				--
0	D-FRUCTOSE	Plant				--
0	ALPHA-CAMPHOLENIC-ACID	Essential Oil				--
0	ALPHA-THUJENE	Essential Oil		500000.0	2.8262426673204106	--
0	(+)-LIMONENE	Essential Oil		45000.0	1.0	--
0	MYRTENIC-ACID	Essential Oil				--
0	TRANS-10-THUJANIC-ACID	Essential Oil				--
0	URS-12-ENE-3-ALPHA-24-DIOL	Resin, Exudate, Sap				--

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0	EO	Resin, Exudate, Sap		160000.0	0.16915880770206396	Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
0	SERRATOL	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
0	CIS-10-THUJANIC-ACID	Essential Oil				--
0	O-ACETYL-BETA-BOSWELLIC-ACID	Resin, Exudate, Sap				Hairfield, E. M., Hairfield Jr., H. H., McNair, H. M. 1989. GC, GC/MS, and TLC of Beta-Boswellic Acid and O-Acetyl-Beta-Boswellic Acid from B. serrata, B. cartell, and B. papyrifera. J. Chromatogr. Sci. 27 3: 127-133.
0	RHAMNOSE	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
0	3-O-ACETYL-BETA-BOSWELLIC-ACID	Resin, Exudate, Sap		150.0		--
0	3-O-ACETYL-11-KETO-BETA-BOSWELLIC-ACID	Resin, Exudate, Sap		550.0		--
0	3-KETOTIRUCALL-8,24-DIEN-21-OIC-ACID	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.

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0	IDOSE	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
0	GERANIC-ACID	Essential Oil				--
0	3-BETA-HYDROXYTIRUCALL-8,24-DIEN-21-OIC-ACID	Resin, Exudate, Sap				Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
0	BOSWELLIA-4-O-METHYL-GLUCURONOARABINOGALACTAN	Inflorescence				--
0	L-SORBOSE	Plant				--