

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Boswellia serrata*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference 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	Essential Oil		8000.0	-0.590948793183161	--
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.
30	BOSWELLIC-ACID	Resin, Exudate, Sap				--
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.
28	ALPHA-PINENE	Essential Oil				--
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	PALMITIC-ACID	Essential Oil				--
13	ALPHA-TERPINENE	Essential Oil				--
13	BETA-PINENE	Essential Oil		62000.0	0.6462841768599185	--
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.
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.

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				--
10	ALPHA-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	--
9	BETA-AMYRIN	Resin, Exudate, Sap				--
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	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				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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				--
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				--
2	ELEMOL	Essential Oil		12000.0	-1.0	--
2	TERPINEOL-ACETATE	Essential Oil		35000.0		--

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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.
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				--
1	D-GLUCOSE	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-CAMPHOLYTIC-ACID	Essential Oil				--
0	D-FRUCTOSE	Plant				--
0	2-ALPHA-3-ALPHA-DIHYDROXY-URS-12-EN-24-OIC-ACID	Resin, Exudate, Sap				--
0	ALPHA-CAMPHOLENIC-ACID	Essential Oil				--
0	(+)-LIMONENE	Essential Oil		45000.0	1.0	--
0	ALPHA-THUJENE	Essential Oil		500000.0	2.8262426673204106	--
0	MYRTENIC-ACID	Essential Oil				--
0	URS-12-ENE-3-ALPHA-24-DIOL	Resin, Exudate, Sap				--
0	TRANS-10-THUJANIC-ACID	Essential Oil				--

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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. carterii, 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-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.
0	3-O-ACETYL-11-KETO-BETA-BOSWELLIC-ACID	Resin, Exudate, Sap		550.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	BOSWELLIA-4-O-METHYL-GLUCURONOARABINOGLACTAN	Inflorescence				--
0	L-SORBOSE	Plant				--
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	BORNEOL-ACETATE	Essential Oil				--
0	D-LACTOSE	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	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	D-GALACTOSE	Plant				--
0	3-ALPHA-HYDROXY-URS-9-12-DIEN-24-OIC-ACID	Resin, Exudate, Sap				--