

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Inula helenium*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
176	QUERCETIN	Inflorescence				--
112	ASCORBIC-ACID	Root	4.4	20.0	-0.6345406922681753	--
112	ASCORBIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
77	ZINC	Root	1.0	3.9	-0.888135144785512	--
77	ZINC	Plant				--
65	MAGNESIUM	Root	1650.0	7500.0	2.627774557100011	--
60	SELENIUM	Root				--
53	BETA-CAROTENE	Root				--
47	BETA-SITOSTEROL	Root				--
44	SCOPOLETIN	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
44	SCOPOLETIN	Shoot				--
39	NIACIN	Root	15.0	70.0	0.5727223514607939	--
36	ALANTOLACTONE	Root Essent. Oil				--
36	ALANTOLACTONE	Rhizome	5000.0	15100.0		--
36	ALANTOLACTONE	Plant				--
36	ALANTOLACTONE	Root	435.0	1740.0		--
34	HELENALIN	Root				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.
28	CALCIUM	Root	2200.0	10000.0	0.28443978784453666	--
24	CHROMIUM	Root	0.2	1.0	-0.3606264349739525	--
22	UMBELLIFERONE	Shoot				--
22	UMBELLIFERONE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
19	INULIN	Root	99000.0	450000.0	0.7427321953048467	--
15	RIBOFLAVIN	Root	0.7	3.2	-0.19138745982624014	--
14	POTASSIUM	Root	2222.0	10100.0	-0.41581998331162273	--
14	MANGANESE	Root	0.2	0.8	-0.5363206240063116	--
14	MANGANESE	Plant				--
13	ISOALANTOLACTONE	Root	1305.0	5215.0		--
13	ISOALANTOLACTONE	Shoot		13.0		--
13	ISOALANTOLACTONE	Rhizome	9900.0	19400.0		--
13	ISOALANTOLACTONE	Root Essent. Oil				--
13	ISOALANTOLACTONE	Essential Oil				--
13	ISOALANTOLACTONE	Plant				--
12	STIGMASTEROL	Root				--
12	COPPER	Plant				--
10	AZULENE	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
9	COSTUNOLIDE	Shoot		20.0	1.0	--
8	INOSITOL	Leaf				--
6	IRON	Plant				--
6	IRON	Root	0.9	4.0	-0.43584204309243646	--
5	HELENIN	Plant				--
5	HELENIN	Root		15600.0		--
5	ALUMINUM	Plant				--
4	3-METHYLQUERCETIN	Inflorescence				--
4	PHOSPHORUS	Root	330.0	1500.0	-0.3545362125680356	--
4	PHOSPHORUS	Plant				--
4	SILICON	Root				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	MUCILAGE	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
3	DAMMARADIENOL	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	NICKEL	Plant				--
2	FRIEDELIN	Root Essent. Oil				--
2	DIHYDROISOALANTOLACT ONE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	DIHYDROISOALANTOLACT ONE	Plant				--
2	DIHYDROISOALANTOLACT ONE	Rhizome				--
2	CAMPESTEROL	Root				--
2	DIHYDROISOALANTOLACT ONE	Root				--
2	GERMACRENE-D	Root				Abstract (See species file)
2	MOLYBDENUM	Plant				--
2	FRIEDELIN	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	COBALT	Root	0.4	1.8	-0.5061395402470722	--
1	CARABRONE	Plant				--
1	CARABRONE	Shoot	34.0	40.0		--
1	SODIUM	Root	128.0	580.0	-0.24271578706308006	--
1	2-ALPHA-HYDROXYALANTOLACTONE	Shoot		56.0		--
0	INULENIN	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	4ALPHA-H-CONFERTIN	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	QUERCETIN-7-O-BETA-TRIGLUCOSIDE	Inflorescence				--
0	ALANTOL	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	GERMACRENE-D-LACTONE	Root		30.0		--
0	EO	Plant	5700.0	54000.0	3.3637756573619817	--
0	HELIANTHENIN	Root				--
0	4-EPIISOINUVISCOLIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	DIHYDROALANTOLACTONE	Root				--
0	ALANTIC-ACID	Root				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	EUDESMA-5-7(11)-DIEN-8-BETA-12-OLIDE	Root				--
0	TOMENTOSIN	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	2-OXOALANTOLACTONE	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	DAMMARADIENYL-ACETATE	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	EUDESMA-5-7(11)-DIEN-13-OL-8-BETA-12-OLIDE	Root				--
0	RESIN	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	9BETA-HYDROXYCOSTULONIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ASH	Root	15840.0	72000.0	0.12682088947059497	--
0	1BETA-HYDROXYALANTOLACTONE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	EUDESMA-4(15)-7(11)-DIEN-8-BETA-12-OLIDE	Root				--
0	PSEUDOINULIN	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	9BETA-(2-METHYLBUTYRYLOXY)-COSTULONIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	GERMACRENE-D-LACTONE	Plant				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	GERMACRENE-D-LACTOSE	Plant				--
0	1BETA,10ALPHA-EPOXY-1,10-H-CIS-INUNOLIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	1-(1-ISO-BUTYROXY-METHYL-1-2-OXIDO-ETHYL)-2-ISO-BUTYROXY-4-METHYL-BENZENE	Root		5.0		--
0	9-BETA-HYDROXYCOSTUNOLIDE	Shoot		20.0		--
0	WATER	Root		780000.0	0.07039472351276986	--
0	BETA-SITOSTEROL-GLUCOSIDE	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	11(13)-DEHYDRO-ERIOLIN	Shoot		37.5		--
0	PHYTOMELANE	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	9-ISOVALERYLOXY-COSTULONIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	DIHYDROALANTOLACTONE	Rhizome				--

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0	EUDESMAMOLIDES	Root				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	(-)-INOSITOL	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	1-DEOXY-8-EPIIVANGUSTIN	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	1BETA,10ALPHA-EPOXY-1,10-H-CIS-INUNOLID	Shoot		16.7		--
0	THIAMINE	Root	2.4	11.0	1.3683576310645862	--
0	PECTINS	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	9-ISOBUTYRYLOXY-COSTULONIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	DAMMARADIENOL-ACETATE	Root		20000.0		--
0	DAMARADIENOL	Root				--
0	8,9-EPOXY-10-ISOBUTYRYLOXYTHYMOL-ISOBUTYRATE	Root				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	GAMMA-SITOSTEROL	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TETRAHYDRO-ALANTOLACTONE	Rhizome				--
0	8-EPITOMENTOSIN	Shoot		16.7		--
0	NONACOSAN	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	FAT	Root	4180.0	19000.0	-0.12938651050011435	--

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0	8-EPITOMENTOSIN	Plant				J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991.
0	DAMMADIEN-3-BETA-OL	Root		60.0		--
0	4BETA,5ALPHA-EPOXY-4,5-CIS-INUNOLIDE	Shoot		33.0		--
0	4,5-DIHYDRO-5,6-DEHYDROALANTOLACTONE	Root				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	8-EPI-ISOVANGUSTIN	Shoot		40.0		--
0	4-EPIISOINUVISCOLIDE	Shoot		6.6		--
0	4-ALPHA-5-ALPHA-EPOXY-10-ALPHA-4(H)-INUVISCOLIDE	Shoot		700.0		--
0	FIBER(DIETARY)	Root		380000.0	-0.20125931618604387	--
0	8-EPIIVANGUSTIN	Plant				J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991.
0	9-BETA-ISO-VALEROYL-OXY-COSTUNOLIDE	Shoot		20.0		--
0	4ALPHA-H-CONFERTIN	Shoot		1.3		--
0	1-BETA-HYDROXYISOALANTOLACTONE	Shoot		3.3		--
0	EUDESMADIEN-5,7(11)-OLID-(8BETA,12)	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TRIDECA-12-ENE-2-4-6-8-10-PENTAYNE	Root		6.6		--
0	ALANTOPICRIN	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	4-ALPHA-5-ALPHA-EPOXY-10-14(H)-INUVISCOLIDE	Shoot		27.0		--
0	INULINASE	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	FIBER(CRUDE)	Root		140000.0	0.8495825650975791	--

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0	4H-TOMENTOSIN	Plant				J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991.
0	9-BETA-ISO-BUTYROYL-OXY-COSTUNOLIDE	Shoot		4.0		--
0	2-OXOALANTOLACTONE	Shoot		5.0		--
0	EUDESMADIEN-4-(15),7(11)-OLID-(8BETA,12)	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TOMENTOSIN	Shoot		26.7		--
0	ALANTOLIC-ACID	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	BETA-HUMULENE	Root		66.0		--
0	4BETA,5ALPHA-EPOXY-4,5-CIS-INUNOLIDE	Plant				J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991.
0	9-BETA-(2-METHYL-BUTYROYL-OXY)-COSTUNOLIDE	Shoot		20.0		--
0	1-DEOXY-8-EPIIVANGUSTIN	Root		180.0		--
0	EO	Fruit	10000.0	40000.0	-0.042481439666032995	--
0	STRONTIUM	Plant				--
0	PROTEIN	Root	39600.0	180000.0	0.6915898871115741	--
0	HELENINE	Root Essent. Oil				--
0	SYNANTHRIN	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.