

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Inula helenium*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	2-ALPHA-HYDROXYALANTOLACTONE	Shoot		56.0		--
4	3-METHYLQUERCETIN	Inflorescence				--
36	ALANTOLACTONE	Root	435.0	1740.0		--
36	ALANTOLACTONE	Root Essent. Oil				--
36	ALANTOLACTONE	Rhizome	5000.0	15100.0		--
36	ALANTOLACTONE	Plant				--
5	ALUMINUM	Plant				--
112	ASCORBIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
112	ASCORBIC-ACID	Root	4.4	20.0	-0.6345406922681753	--
10	AZULENE	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
53	BETA-CAROTENE	Root				--
47	BETA-SITOSTEROL	Root				--
28	CALCIUM	Root	2200.0	10000.0	0.28443978784453666	--
2	CAMPESTEROL	Root				--
1	CARABRONE	Plant				--
1	CARABRONE	Shoot	34.0	40.0		--
24	CHROMIUM	Root	0.2	1.0	-0.3606264349739525	--
2	COBALT	Root	0.4	1.8	-0.5061395402470722	--
12	COPPER	Plant				--
9	COSTUNOLIDE	Shoot		20.0	1.0	--
3	DAMMARADIENOL	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
2	DIHYDROISOALANTOLACTONE	Plant				--
2	DIHYDROISOALANTOLACTONE	Rhizome				--
2	DIHYDROISOALANTOLACTONE	Root				--
2	DIHYDROISOALANTOLACTONE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	FRIEDELIN	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	FRIEDELIN	Root Essent. Oil				--
2	GERMACRENE-D	Root				Abstract (See species file)
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.
5	HELENIN	Root		15600.0		--
5	HELENIN	Plant				--
8	INOSITOL	Leaf				--
19	INULIN	Root	99000.0	450000.0	0.7427321953048467	--
6	IRON	Plant				--
6	IRON	Root	0.9	4.0	-0.43584204309243646	--
13	ISOALANTOLACTONE	Root	1305.0	5215.0		--
13	ISOALANTOLACTONE	Shoot		13.0		--
13	ISOALANTOLACTONE	Plant				--
13	ISOALANTOLACTONE	Root Essent. Oil				--
13	ISOALANTOLACTONE	Rhizome	9900.0	19400.0		--
13	ISOALANTOLACTONE	Essential Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
65	MAGNESIUM	Root	1650.0	7500.0	2.627774557100011	--
14	MANGANESE	Root	0.2	0.8	-0.5363206240063116	--
14	MANGANESE	Plant				--
2	MOLYBDENUM	Plant				--
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.
39	NIACIN	Root	15.0	70.0	0.5727223514607939	--
3	NICKEL	Plant				--
4	PHOSPHORUS	Root	330.0	1500.0	-0.3545362125680356	--
4	PHOSPHORUS	Plant				--
14	POTASSIUM	Root	2222.0	10100.0	-0.41581998331162273	--
176	QUERCETIN	Inflorescence				--
15	RIBOFLAVIN	Root	0.7	3.2	-0.19138745982624014	--
44	SCOPOLETIN	Shoot				--
44	SCOPOLETIN	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
60	SELENIUM	Root				--
4	SILICON	Root				--
1	SODIUM	Root	128.0	580.0	-0.24271578706308006	--
12	STIGMASTEROL	Root				--
22	UMBELLIFERONE	Shoot				--
22	UMBELLIFERONE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
77	ZINC	Plant				--
77	ZINC	Root	1.0	3.9	-0.888135144785512	--