

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Allium cepa*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	WATER	Leaf		922000.0	0.5705515493442906	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	WATER	Bulb	866000.0	918000.0	0.778867813617976	--
0	CARBOHYDRATES	Bulb	73200.0	798000.0	-1.0	--
0	CARBOHYDRATES	Leaf	47000.0	603000.0	-0.07037799270480313	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
27	LINOLEIC-ACID	Seed Oil	575000.0	590600.0	0.7844920848789769	--
0	FRUCTOSAN	Bulb	100000.0	400000.0	1.0	--
0	POLYSACCHARIDES	Bulb	100000.0	400000.0		--
18	OLEIC-ACID	Seed Oil	260000.0	292900.0	-0.1478289753657865	--
0	PROTEIN	Leaf	18000.0	231000.0	0.19108914041232994	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	PROTEIN	Bulb	10940.0	162000.0	-1.0	--
15	FIBER	Leaf	11000.0	141000.0	-0.2539378373860592	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
15	FIBER	Bulb	4400.0	126000.0	1.0	--
27	LINOLEIC-ACID	Seed	103500.0	106200.0	-0.00790147227328753	Wealth of India.
0	ASH	Leaf	7000.0	90000.0	-0.5083313983755301	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	FAT	Leaf	6000.0	77000.0	0.4092541682128573	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
13	PALMITIC-ACID	Seed Oil		73000.0	-0.723771059427567	--
0	ASH	Bulb	4000.0	63000.0	-1.0	--
176	QUERCETIN	Bulb	0.0	48100.0	1.0	--
18	OLEIC-ACID	Seed		46800.0	-0.5943767329474172	Wealth of India.
0	FAT	Bulb	1000.0	36079.0	1.0	--
8	STEARIC-ACID	Seed Oil		35000.0	-0.6541098145281985	--
3	DIPHENYLAMINE	Bulb		23000.0		--
14	POTASSIUM	Bulb	1514.0	22164.0	1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	NITROGEN	Bulb	1700.0	17690.0		ACTA AGRIC SCAND SUPPL 22: 1980
43	PROTocatechuic-acid	Bulb	4500.0	17540.0		--
14	ARGININE	Bulb	1580.0	17222.0	-1.0	USDA's Ag Handbook 8 and sequelae)
87	RUTIN	Bulb		14000.0		--
13	PALMITIC-ACID	Seed		13140.0	-0.4284802139449916	Wealth of India.
4	SPIRAEOSIDE	Bulb	10000.0	11300.0		--
3	ALANINE	Bulb	330.0	8597.0	1.0	USDA's Ag Handbook 8 and sequelae)
3	ASPARTIC-ACID	Bulb	640.0	6967.0	-1.0	USDA's Ag Handbook 8 and sequelae)
8	STEARIC-ACID	Seed		6300.0	-0.4287014331879593	Wealth of India.
4	LYSINE	Bulb	560.0	6104.0	-1.0	USDA's Ag Handbook 8 and sequelae)
4	PUFA	Bulb	620.0	6005.0		USDA's Ag Handbook 8 and sequelae)
0	QUERCETIN-3,4'-DI-O-BETA-D-GLUCOSIDE	Bulb	1700.0	5600.0		--
4	PHOSPHORUS	Leaf	310.0	5513.0	0.09963731108701822	--
28	CALCIUM	Leaf	420.0	5385.0	-0.8918247706535197	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
12	GLYCINE	Bulb	490.0	5341.0	1.0	--
112	ASCORBIC-ACID	Leaf	390.0	5000.0	0.020016189970703997	--
0	ALLIOSPIROSIDE-A	Pericarp		4600.0		--
3	ISOLEUCINE	Bulb	420.0	4578.0	-1.0	USDA's Ag Handbook 8 and sequelae)
2	LEUCINE	Bulb	410.0	4469.0	-1.0	USDA's Ag Handbook 8 and sequelae)
14	SULFUR	Bulb	80.0	4075.0	-1.0	--
4	PHOSPHORUS	Bulb	275.0	4038.0	-1.0	--
0	PROLINE	Bulb	370.0	4033.0	-1.0	USDA's Ag Handbook 8 and sequelae)
1	SERINE	Bulb	350.0	3815.0	-1.0	USDA's Ag Handbook 8 and sequelae)
0	KILOCALORIES	Bulb	380.0	3750.0	1.0	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	KILOCALORIES	Leaf	260.0	3330.0	0.5027842271594564	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
7	PHENYLALANINE	Bulb	300.0	3270.0	-1.0	USDA's Ag Handbook 8 and sequelae)
8	TYROSINE	Bulb	290.0	3161.0	-1.0	USDA's Ag Handbook 8 and sequelae)
4	THREONINE	Bulb	280.0	3052.0	-1.0	USDA's Ag Handbook 8 and sequelae)
28	CALCIUM	Bulb	200.0	3008.0	0.11970003608893207	--
3	VALINE	Bulb	270.0	2943.0	-1.0	--
0	SFA	Bulb	260.0	2520.0		USDA's Ag Handbook 8 and sequelae)
13	PALMITIC-ACID	Bulb	240.0	2325.0	-1.0	--
2	CYSTINE	Bulb	210.0	2289.0	1.0	USDA's Ag Handbook 8 and sequelae)
18	OLEIC-ACID	Bulb	230.0	2230.0	1.0	--
13	MUFA	Bulb	230.0	2230.0		USDA's Ag Handbook 8 and sequelae)
7	HISTIDINE	Bulb	190.0	2071.0	-1.0	USDA's Ag Handbook 8 and sequelae)
1	SODIUM	Bulb	8.0	2052.0	1.4085638338778703	--
29	TRYPTOPHAN	Bulb	170.0	1853.0	1.0	USDA's Ag Handbook 8 and sequelae)
2	PHYTOSTEROLS	Bulb	150.0	1455.0	1.0	--
65	MAGNESIUM	Bulb	76.0	1230.0	0.7319115529256467	--
15	METHIONINE	Bulb	100.0	1090.0	-1.0	--
1	PYRUVIC-ACID	Fruit		1034.0		--
1	PYRUVIC-ACID	Fruit Juice		1034.0		Morgan, E. J. 1946. Pyruvic Acid in the Juice of Onion (<i>Allium cepa</i>). <i>Nature</i> (London), 157: 512.
20	CHOLINE	Bulb		830.0		Dakshinamurti, K. 1955. Choline Content of South Indian Foods. <i>Curr. Sci.</i> , 24: 194-195.
0	QUERCETIN-4-O-BETA-D-GLUCOSIDE	Bulb	100.0	800.0		--
47	BETA-SITOSTEROL	Bulb	120.0	510.0	-1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	DIPHENYLAMINE	Plant		500.0		Karawy, M. S., Ehayyal, A. S. E., Farrag, N. M., Ayad, M. M. 1986. Screening of Diphenylamine as an Antihyperglycaemic Agent in Certain Edible Plant Organs. Acta. Pharm. Hung, 56: 55-58.
0	ALLIOSPIROSIDE-B	Fruit		500.0		Kravets, S.D., Vollerner, Y.S., Gorovits, M.B., Shashkov, A.S., Abubakirov, N.K. 1987. Steroid of the Spirostand and Furostan Series from Plants of the Genus Allium. II. The Structure of Alliospiroside B from Allium cepa. Chem. Nat. Comp., 22(5): 553-556.
0	ALLIOSPIROSIDE-C	Fruit		491.0		Kravets, S. D., et. al. 1988. Steroids of the Spirostan and Furostan Series of Plants of the Allium Genus. XXIII. Structure of Cepagenin and of Alliospirosides C and D from Allium cepa. Chem. Nat. Comp., 23(6): 700-706.
6	IRON	Leaf	34.0	436.0	0.18456741976079077	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
5	ALUMINUM	Bulb	0.3	385.0	1.0	--
24	VANILLIC-ACID	Bulb		258.0	1.0	--
6	IRON	Seed		235.0	0.3912510395242066	--
0	ALLIOFUROSIDE-A	Pericarp		220.0		--
8	STEARIC-ACID	Bulb	20.0	195.0		--
0	STRONTIUM	Bulb	57.0	162.0		--
0	QUERCETIN-4',7-DI-O-BETA-D-GLUCOSIDE	Bulb	0.0	160.0		--
53	BETA-CAROTENE	Leaf	12.0	158.0	-0.4498575995747604	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	EO	Bulb	50.0	150.0	-1.2862606900150364	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	IRON	Bulb	2.0	135.0	0.7831452902858658	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	S-(2-CARBOXY-PROPYL)-GLUTATHIONE	Bulb		125.0	-1.0	Tsuboi, S., Kishimoto, S., Ohmori, S. 1989. S-(2-carboxypropyl)glutathione in Vegetables in Liliiflorae. J. Agric. Food Chem. 37(3): 611-615.
13	P-HYDROXY-BENZOIC-ACID	Bulb		107.0	1.0	--
0	P-HYDROXYBANZOIC-ACID	Bulb		107.0		--
0	PHLOROGLUCINOL-CARBOXYLIC-ACID	Bulb		100.0		Hermann, K. 1958. Flavonols and Phenols of the Onion (<i>Allium cepa</i>). Arch. Pharm. (Weinheim), 291: 238-247.
8	PHLOROGLUCINOL	Bulb		100.0		--
6	MYRISTIC-ACID	Bulb	10.0	100.0	-1.0	USDA's Ag Handbook 8 and sequelae)
39	NIACIN	Leaf	7.0	90.0	-0.09123627617407809	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
39	NIACIN	Bulb	1.0	75.0	1.0	--
4	SILICON	Bulb	1.0	75.0		ACTA AGRIC SCAND SUPPL 22: 1980
0	ALLIOSPIROSIDE-D	Fruit		71.0		Kravets, S. D., et. al. 1988. Steroids of the Spirostan and Furostan Series of Plants of the Allium Genus. XXIII. Structure of Cepagenin and of Alliospirosides C and D from <i>Allium cepa</i> . Chem. Nat. Comp., 23(6): 700-706.
77	ZINC	Bulb	2.0	53.0	1.4104984605249231	--
53	BETA-CAROTENE	Bulb	0.0	52.0	0.9999999999999998	--
2	CAMPESTEROL	Bulb	10.0	50.0	-1.0	--
4	BORON	Bulb	1.0	45.0	1.0	--
12	STIGMASTEROL	Bulb		40.0		--
2	QUERCETIN-3-O-BETA-D-GLUCOSIDE	Bulb	0.0	40.0		Abstract (See species file)
14	MANGANESE	Bulb	1.0	38.0	1.4045726642160135	--
77	ZINC	Seed		34.0	-0.31604114389068755	--
32	ALPHA-TOCOPHEROL	Bulb	0.4	30.0	1.0	--
0	BARIUM	Bulb	4.0	28.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CAROTENE	Flower		28.0		Krylova, M. I. 1967. Carotenoids in the Reproductive Organs of Fertile and Sterile Onion Plants, <i>Allium cepa</i> . Bot. ZH., 52(9): 1340-1341.
53	BETA-CAROTENE	Flower		28.0	-0.18921282459251038	--
0	S-PROP-1-ENYL-CYSTEINE-S-OXIDE	Bulb		26.0		--
7	SALICYLATES	Bulb	1.0	20.0	1.0	--
14	MANGANESE	Seed		19.4	-0.425040968734703	--
12	COPPER	Seed		18.2	0.3070837559561808	--
0	VIT-B-6	Bulb	1.0	18.0		USDA's Ag Handbook 8 and sequelae)
11	PANTOTHENIC-ACID	Bulb	1.0	16.0	1.0	USDA's Ag Handbook 8 and sequelae)
0	BROMINE	Bulb	1.0	15.0		ACTA AGRIC SCAND SUPPL 22: 1980
15	RIBOFLAVIN	Bulb	0.4	15.0	1.0	--
15	TRIGONELLINE	Seed		13.0	-0.46591212987573255	Evans, L. S., Tramontano, W. A. 1984. Trigonelline and Promotion of Cell Arrest in G2 of Various Legumes. <i>Phytochemistry</i> , 23(9): 1837-1840.
0	TITANIUM	Bulb	0.38	11.0		USDA's Ag Handbook 8 and sequelae)
12	COPPER	Bulb	0.3	11.0	0.10619884881071792	--
9	OXALIC-ACID	Bulb		10.0		--
0	RUBIDIUM	Bulb	0.14	6.6		ACTA AGRIC SCAND SUPPL 22: 1980
31	THIAMIN	Leaf	0.5	6.4	-0.39693808734805064	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
31	THIAMIN	Bulb	0.3	6.0	-1.0	--
24	CHROMIUM	Seed		4.8	0.016797185555398934	--
24	CHROMIUM	Bulb	0.057	4.0	1.0	--
3	NICKEL	Seed	0.03	4.0	-0.14389814511946067	--
3	NICKEL	Bulb	0.05	2.5	0.9999999999999996	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	COBALT	Seed		2.5	-0.0975154003240051	--
2	MOLYBDENUM	Bulb	0.1	2.3	1.0000000000000002	--
75	KAEMPFEROL	Bulb		2.0		--
0	LEAD	Bulb	0.01	1.4		--
2	PROSTAGLANDIN-A-1	Bulb		1.0		--
0	ZIRCONIUM	Bulb	0.76	1.0		--
0	FLUORINE	Bulb	0.04	0.8		ACTA AGRIC SCAND SUPPL 22: 1980
0	MEVALONIC-ACID	Bulb		0.5		Wills, R. B. H., Scurr, E. V. 1975. Mevalonic Acid Concentrations in Fruit and Vegetable Tissues. Phytochemistry, 14: 1643.
61	FERULIC-ACID	Bulb		0.5	-1.0	--
3	CADMIUM	Bulb	0.005	0.38		--
11	LITHIUM	Bulb	0.152	0.324		--
3	ENDOLYSIN	Leaf		0.3	-1.0	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.
3	MURAMIDASE	Leaf		0.3		LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.
2	COBALT	Bulb	0.001	0.2	-1.0000000000000002	--
2	ARSENIC	Bulb	0.002	0.076		--
3	SILVER	Bulb	0.038	0.054		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	ENDOLYSIN	Bulb		0.033	-1.0	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.
3	MURAMIDASE	Bulb		0.033	-1.0	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.
15	LUTEIN	Bulb		0.02		Granado, F., Olmedilla, B., Blanco, I., Rojas-Hidalgo, E. 1992. Carotenoid Composition in Raw and Cooked Spanish Vegetables. J. Agr. Food Chem., 40(11): 2135-2140.
60	SELENIUM	Bulb	0.001	0.003	-1.0000000000000002	--
1	MERCURY	Bulb		0.001	-1.0	--
0	GAMMA-GLUTAMYL-LEUCINE	Bulb				Virtanen, A. I., Matikkala, B. J. 1961. New gamma-l-glutamyl Petides in Onion (Allium cepa). III. Suomen Kemistilehti, 34B: 53-54.
0	PELARGONIDIN-MONOGLYCOSIDE	Bulb				Fuleki, T. 1969. The Anthocyanins of Strawberry, Rhubarb, Radish, and Onion. J. Food Sci., 34(4): 365-369.
0	2-METHYL-PENT-2-EN-1-AL	Essential Oil				Albrand, M., Dubois, P., Etievant, P., Gelin, R., Tokarska, B. 1980. Identification of a New Volatile Compound in Onion (Allium cepa) and Leek (Allium porum): 3,4-dimethyl-2,5-dioxo-2,5-dihydrothiophene. J. Agric. Food Chem., 28(5): 1037-1038.
0	TRANS-3,5-DIETHYL-1,2,4,-TRITHIOLANE	Leaf				Chemical Constituents of Oriental Herbs (3 diff. books)
0	CYANIDIN-3-O-LAMINARIBIOSIDE	Bulb				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	METHYLPROPYL-TRISULFIDE	Essential Oil				Jirovetz, L., Koch, H. P., Jager, W., Remberg, G. 1992. Investigations of German Onion Oil by GC-FID, GC-MS and GC-FTIR. Pharmazie, 47(6): 455-456.
2	METHANOL	Bulb				--
0	ISOPROPYL-PROPYL-TRISULFIDE	Bulb				Wealth of India.
0	ALLIIN-GAMMA-GLUTAMYL-PEPTIDE	Bulb				Ueda, Y., Taubuku, T., Miyajima, R. 1994. Composition of Sulfur-Containing Components in Onion and Their Flavor Characters. Biosci. Biotech. Biochem., 58(1): 108-110.
0	SATIOMEM	Bulb				Upreti, R. K., Ahmad, S., Shukla, S., Kidwai, A. M. 1994. Experimental Anorexigenic Effect of a Membrane Proteoglycan Isolated from Plants. J. Ethnopharmacology, 42(1): 53-61.
2	METHANOL	Leaf				Burtsev, A. F., Pashchenko, T. W., Rik, G. R. 1974. Mass-Spectrometric Analysis of Volatile Phytonocide Substances of Cucumber and Common Onion Leaves. Fiziol Biokhim Kul't Rast, 6: 516-.
0	CEPANONE	Bulb				Wealth of India.
1	RAFFINOSE	Bulb				Osman, S. A. 1980. Chemical and Biological Studies of Onion and Garlic in an Attempt to Isolate a Hypoclycaemic Extract. Abstr. 4th Asian Symp. Med. Plants Spices Bangkok, Thailand, September 15-19: 117.
0	CYANIDIN-3-O-LAMINARIOBIOSIDE	Bulb				Du, C. T., Wang, P. L., Francis, F. J. 1974. Cyanidin-3-Laminariobioside in Spanish Red Onion (Allium cepa). J. Food Science, 39: 1265-.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	SODIUM-PROP-TRANS-1-ENYL-THIOSULFATE	Bulb				Yamato, O., Yoshihara, T., Ichihara, A., Maede, Y. 1994. Novel Heinz Body Hemolysis Factors in Onion (<i>Allium cepa</i>). <i>Biosci. Biotech. Biochem.</i> , 58(1): 221-222.
0	NONADECANOIC-ACID	Bulb				Gilbert, M. D., Maylin, G. A., Lisk, D. J. 1976. Gas Chromatographic Analysis of Neodecanoic Acids in Onions. <i>J. Agr. Food Chem.</i> , 24(1): 194-.
0	1-O-CAFFEYOYL-BETA-D-GLUCOSE	Leaf				--
14	SUCROSE	Bulb				Osman, S. A. 1980. Chemical and Biological Studies of Onion and Garlic in an Attempt to Isolate a Hypoclycaemic Extract. <i>Abstr. 4th Asian Symp. Med. Plants Spices Bangkok, Thailand, September 15-19: 117.</i>
0	GAMMA-L-GLUTAMYL-S-(2-CARBOXY-BETA-METHYLETHYL)-CYSTEINYL-GLYCINE-ETHYL-ESTER	Bulb				--
2	5-OCTYL-CYCLOPENTA-1,3-DIONE	Bulb				--
26	DIALLYL-DISULFIDE	Essential Oil				Schultz, O. E., Mohrmann, H. L. 1965. Analysis of Constituents of Garlic <i>Allium sativum</i> . II. Gas Chromatography of Garlic Oil. <i>Pharmazie</i> , 20(7): 441-447.
0	CEPAENE-2-B	Bulb				Bayer, T., Wagner, H., Wray, V., Dorsch, W. 1988. Inhibitors of Cyclo-Oxygenase and Lipoxygenase in Onions. <i>Lancet</i> , 8616: 906.
0	CIS-ZWEIBELANE	Bulb				Calvey, E. M., Matusik, J. E., White, K. D., Betz, J. M., Block, E., Littlejohn, M. H., Naganathan, S., Putman, D. 1994. Off-Line Supercritical Fluid Extraction of Thiosulfinates from Garlic and Onion. <i>J. Agric. Food Chem.</i> , 42(6): 1335-1341.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CIS-PROPANETHIAL-S-OXIDE	Bulb				Block, E., Penn, R. E., Revelle, L. K. 1979. Structure and Origin of the Onion Lachrymatory Factor. A Microwave Study. J. Amer. Chem. Soc., 101: 2200-2201.
2	PROPIONALDEHYDE	Leaf				Burtsev, A. F., Pashchenko, T. W., Rik, G. R. 1974. Mass-Spectrometric Analysis of Volatile Phytonocide Substances of Cucumber and Common Onion Leaves. Fiziol Biokhim Kul't Rast, 6: 516-.
0	TRIDECAN-2-ONE	Bulb				Wealth of India.
0	ARACHIDIC-ACID	Seed				--
7	FUMARIC-ACID	Bulb				--
24	PECTIN	Bulb				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	2-METHYL-BUTYR-2-ALDEHYDE	Bulb				Wilens, W. F. 1964. Isolation and Identification of the Lachrymogenic Compound of Onion. Cornell Univ., Agr. Expt. Sta. Mem. No., 385: 31 pp.
0	TRANS-2,3-DIMETHYL-5,6-DITHIA-CYCLO(2,2,1)HEPTANE-5-OXIDE	Bulb				Dorsch, W., et. al. 1988. Anti-Asthmatic Effects of Onions. Alk(en)ylsulfinothioic Acid Alk(en)yl-Esters Inhib. Histamine Rel. Leukotriene & Thromboxane Biosyn. in Vitro and Counteract PAF & Allergen-Ind. Bronch. Obst. in Vivo. Biochem. Pharmacol., 37:4479-4486.
0	CYANIDIN-3-O-BETA-D-DIGLYCOSIDE	Bulb				--
0	METHIONINE-METHYLSULFONIUM-SALT	Bulb				Renis, H. E., Henze, R. E. 1957. Studies on Sulfur Compounds from Onion. Diss. Abstr. Int. B, 17: 1456-1457.
0	ISOPROPYL-PROPYL-DISULFIDE	Bulb				Wealth of India.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	S-METHYL-CYSTEINE-SULFOXIDE	Bulb				Kumari, K., Augusti, K. T. 1995. Antidiabetic Effects of S-Methylcysteine Sulphoxide on Alloxan Diabetes. <i>Planta Medica</i> , 61(1): 72-74.
21	ALLIIN	Essential Oil				Bekdairova, K. Z., Klyshev, L. K. 1982. Garlic Essential Oil and its Quantitative Analysis. <i>Izv Akad Nauk Kaz Ssr Ser Biol</i> , 1: 6-11.
0	N-PROPYL-N-PROPANE-THIOSULFINATE	Fruit Juice				Schmidt, N. E., et. al. 1996. Rapid Extraction Method of Quantitating the Lachrymatory Factor of Onion Using Gas Chromatography. <i>J. Agric. Food Chem.</i> , 44(9): 2690-2693.
23	MELATONIN	Bulb				Hattori, A., et. al. 1995. Identification of Melatonin in Plants and its Effects on Plasma Melatonin Levels and Binding to Melatonin Receptors in Vertebrates. <i>Biochem. Mol. Biol. Int.</i> , 35(3): 627-634.
0	NORCEPANONE	Bulb				Wealth of India.
1	QUINIC-ACID	Bulb				--
0	SELENO-HOMOCYSTINE	Plant				Hamilton, J. W. 1975. Chemical Examination of Seleniferous Onions, <i>Allium cepa</i> . <i>Adv. Front Plant Sci.</i> , 30: 189-.
0	SODIUM-PROP-CIS-1-ENYL-THIOSULFATE	Bulb				Yamato, O., Yoshihara, T., Ichihara, A., Maede, Y. 1994. Novel Heinz Body Hemolysis Factors in Onion (<i>Allium cepa</i>). <i>Biosci. Biotech. Biochem.</i> , 58(1): 221-222.
0	HEXADECEN-1-OL	Seed				--
0	EICOSEN-1-OL	Seed				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	1-METHYLTRITHIO-PROPANE	Essential Oil				Albrand, M., Dubois, P., Etievant, P., Gelin, R., Tokarska, B. 1980. Identification of a New Volatile Compound in Onion (<i>Allium cepa</i>) and Leek (<i>Allium porum</i>): 3,4-dimethyl-2,5-dioxo-2,5-dihydrothiophene. <i>J. Agric. Food Chem.</i> , 28(5): 1037-1038.
7	SUCCINIC-ACID	Bulb				Soldatenkov, S. V., Mazurova, T. A., Ranteleev, A. N. 1960. Organic Acids of Onion and Spinach. <i>Trudy Petergof Biol. Inst., Leningrad Gosudarst Univ Im AA Zhdanova</i> , 18: 55-61.
0	DIMETHYL-TRISULFIDE	Bulb				Carson, J. F., Wong, F. F. 1961. The Volatile Flavor Components of Onions. <i>J. Agric. Food Chem.</i> , 9(2): 140-143.
30	ANTHOCYANINS	Bulb				Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp.
20	BENZYL-ISOTHIOCYANATE	Bulb				Dorsch, W., Adam, O., Weber, J., Ziegeltrum, T. 1985. Antiasthmatic Effects of Onion Extracts - Detection of Benzyl- and Other Isothiocyanates (Mustard Oils) as Antiasthmatic Compounds of Plant Origin. <i>Eur. J. Pharmacol.</i> , 107(1): 17-24.
0	GAMMA-L-GLUTAMYL-S-(2-CARBOXY-BETA-METHYLETHYL)-CYSTEINYL-GLYCINE	Bulb				--
2	5-HEXYL-CYCLOPENTA-1,3-DIONE	Bulb				--
0	D-MANNITOL	Bulb				--
0	METHYLPROPYL-TRISULFIDE	Bulb				--
0	CEPAENE-2-A	Bulb				Bayer, T., Wagner, H., Wray, V., Dorsch, W. 1988. Inhibitors of Cyclo-Oxygenase and Lipoxygenase in Onions. <i>Lancet</i> , 8616: 906.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	SUGARS	Bulb				Malkki, Y., Nikkila, O. E., Aalto, M. 1978. The Composition and Aroma of Onions and Influencing Factors. J. Sci. Agr. Soc. Finland, 50: 103-.
0	2-PROPENYL-L-CYSTEINE-SULFOXIDE	Bulb				Thomas, D. J., Parkin, K. L. 1994. Quantification of Alk(en)yl-L-Cysteine Sulfoxides and Related Amino Acids in Alliums by High-Performance Liquid Chromatography. J. Agr. Food Chem., 42(8): 1632-1638.
11	ISORHAMNETIN	Bulb				Park, Y. K., Lee, C. Y. 1996. Identification of Isorhamnetin 4'-Glucoside in Onions. J. Agric. Food Chem., 44(1): 34-36.
4	TRANS-N-PROPYLSULPHINOTHIOIC-ACID-S-1-PROPENYLESTER	Bulb				--
8	FRUCTOSE	Bulb				Osman, S. A. 1980. Chemical and Biological Studies of Onion and Garlic in an Attempt to Isolate a Hypoclycaemic Extract. Abstr. 4th Asian Symp. Med. Plants Spices Bangkok, Thailand, September 15-19: 117.
0	2-METHYL-BUT-2-EN-1-AL	Bulb				Wilkens, W. F. 1962. The Isolation and Identification of the Lachrymogenic Compound of Onion. Diss. Abstr. Int. B, 22: 3978.
0	TRANS-1-(PROPENYL-DITHIO)-PROPANE	Essential Oil				--
16	P-CYMENE	Fruit Juice				Schmidt, N. E., et. al. 1996. Rapid Extraction Method of Quantitating the Lachrymatory Factor of Onion Using Gas Chromatography. J. Agric. Food Chem., 44(9): 2690-2693.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	ETHYLENE	Bulb				LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of <i>Allium sativum</i> L. and related species. Williams & Wilkins, Baltimore. 329 pp.
0	S-METHYL-CYSTEINE	Bulb				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	ADENOSINE	Bulb				--
0	N-PROPYL-METHANE-THIOSULFINATE	Fruit Juice				Schmidt, N. E., et. al. 1996. Rapid Extraction Method of Quantitating the Lachrymatory Factor of Onion Using Gas Chromatography. J. Agric. Food Chem., 44(9): 2690-2693.
0	NEODECANOIC-ACID	Bulb				Wealth of India.
0	ARABINOSE	Bulb				Sinha, A. 1959. Chemical Examination of <i>Allium cepa</i> . I. Glycosidic and Sugar Fractions. Indian J. Appl. Chem., 22: 89-91.
0	METHYL-CIS-PROPENYL-DISULFIDE	Bulb				Wealth of India.
0	SODIUM-PROPYL-THIOSULFATE	Bulb				Yamato, O., Yoshihara, T., Ichihara, A., Maede, Y. 1994. Novel Heinz Body Hemolysis Factors in Onion (<i>Allium cepa</i>). Biosci. Biotech. Biochem., 58(1): 221-222.
102	CAFFEIC-ACID	Bulb				--
0	GRAMISTEROL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. Phytochemistry, 16: 140-141.
21	ALLIIN	Bulb				--
0	DIPROPYL-TRISULFIDE	Bulb				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	1-METHYLDITHIO-PROPANE	Essential Oil				Albrand, M., Dubois, P., Etievant, P., Gelin, R., Tokarska, B. 1980. Identification of a New Volatile Compound in Onion (<i>Allium cepa</i>) and Leek (<i>Allium porum</i>): 3,4-dimethyl-2,5-dioxo-2,5-dihydrothiophene. <i>J. Agric. Food Chem.</i> , 28(5): 1037-1038.
0	DIMETHYLTETRASULFIDE	Essential Oil				--
0	ALLYLTHIOL-SULFIDE	Bulb				Wealth of India.
0	GAMMA-L-GLUTAMYL-S-(1-PROPENYL)L-CYSTEINE-SULFOXIDE	Bulb				--
0	PHYTOHORMONE	Bulb				--
0	5-DEHYDRO-AVENASTEROL	Seed				Kintia, P. K., Degtiaryova, L. P., Balashova, N. N., Shvets, S. A. 1987. Sterols and Steroidal Glycosides of Bulb Onion Seeds. <i>Fecs. Int. Conf. Chem. Biotechnol. Biol. Act. Nat. Prod.</i> , (Proc.) 3rd: 166-170.
0	KAEMPFEROL-3-O-SOPHOROSIDE-7-O-GLUCURONIDE	Epidermis				Urushibara, S. I., Kitayama, Y., Watanabe, T., Okuno, T., Watarai, A., Matsumoto, T. 1992. New Flavonol Glycosides, Major Determinants Inducing the Green Fluorescence in the Guard Cells of <i>Allium cepa</i> . <i>Tetrahedron Lett.</i> , 33(9): 1213-1216.
0	METHYL-PROPYL-DISULFIDE	Bulb				--
0	SELENOSIDE	Plant				--
0	CEPAENE-1	Bulb				--
14	SUCROSE	Leaf				Osman, S. A. 1980. Chemical and Biological Studies of Onion and Garlic in an Attempt to Isolate a Hypoclycaemic Extract. <i>Abstr. 4th Asian Symp. Med. Plants Spices Bangkok, Thailand, September 15-19: 117.</i>

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
22	ISOQUERCITRIN	Bulb				Kiviranta, J., Huovinen, K., Hiltunen, R. 1986. Variation of Flavonoids in <i>Allium cepa</i> . <i>Planta Medica</i> , 6: 517-518.
4	TRANS-METHYLSULPHINOTHIOIC-ACID-S-1-PROPENYLESTER	Bulb				--
0	2,5-DIMETHYLTHIOPHENE	Bulb				--
25	P-COUMARIC-ACID	Root				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. <i>Curr. Sci.</i> , 33(15): 471-472.
0	S-ALLYL-CYSTEINE	Bulb				Renis, H. E., Henze, R. E. 1957. Studies on Sulfur Compounds from Onion. <i>Diss. Abstr. Int. B</i> , 17: 1456-1457.
0	ACE-AMP-1	Seed				Tassin, S., et. al. 1998. Solution Structure of Ace-Amp1, a Potent Antimicrobial Protein Extracted from Onion Seeds. Structural Analogies with Plant Nonspecific Lipid Transfer Proteins. <i>Biochemistry</i> , 37(11): 3623-3637.
0	METHYL-N-PROPANE-THIOSULFINATE	Fruit Juice				Schmidt, N. E., et. al. 1996. Rapid Extraction Method of Quantitating the Lachrymatory Factor of Onion Using Gas Chromatography. <i>J. Agric. Food Chem.</i> , 44(9): 2690-2693.
27	LINOLEIC-ACID	Bulb				Osman, S. A. 1980. Chemical and Biological Studies of Onion and Garlic in an Attempt to Isolate a Hypoclycaemic Extract. <i>Abstr. 4th Asian Symp. Med. Plants Spices Bangkok, Thailand, September 15-19: 117.</i>
4	N-PROPYLSULPHINOTHIOIC-ACID-S-N-PROPYLESTER	Bulb				--
0	DIPROPYL-TRISULFIDE	Essential Oil				Jirovetz, L., Koch, H. P., Jager, W., Remberg, G. 1992. Investigations of German Onion Oil by GC-FID, GC-MS and GC-FTIR. <i>Pharmazie</i> , 47(6): 455-456.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	RAFFINOSE	Leaf				Osman, S. A. 1980. Chemical and Biological Studies of Onion and Garlic in an Attempt to Isolate a Hypoclycaemic Extract. Abstr. 4th Asian Symp. Med. Plants Spices Bangkok, Thailand, September 15-19: 117.
4	GLYCOLIC-ACID	Bulb				Balansard, J., Arnoux, M. 1951. A Study of the Hepato-Renaldiuretics. III. The Active Principle of Onion Juice. Med. Trop. (Marseille), 11: 632-634.
67	ALLICIN	Bulb				--
0	DIPROPYL-DISULPHIDE	Bulb				--
1	1-(METHYLSULFINYL)-PROPYL-METHYL-DISULFIDE	Bulb				--
1	CHOLESTEROL	Bulb				--
0	DIMETHYL-PENTASULFIDE	Essential Oil				Jirovetz, L., Koch, H. P., Jager, W., Remberg, G. 1992. Investigations of German Onion Oil by GC-FID, GC-MS and GC-FTIR. Pharmazie, 47(6): 455-456.
0	ALLYLPROPYL-SULFIDE	Bulb				Wealth of India.
0	GAMMA-L-GLUTAMYL-S(2-CARBOXY-N-PROPYL)L-CYSTEINE	Bulb				--
0	4-ALPHA-METHYL-ZYMOSTENOL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. Phytochemistry, 16: 140-141.
13	CYSTEINE	Bulb				Ueda, Y., Taubuku, T., Miyajima, R. 1994. Composition of Sulfur-Containing Components in Onion and Their Flavor Characters. Biosci. Biotech. Biochem., 58(1): 108-110.
7	GLUTATHIONE	Bulb				Ueda, Y., Taubuku, T., Miyajima, R. 1994. Composition of Sulfur-Containing Components in Onion and Their Flavor Characters. Biosci. Biotech. Biochem., 58(1): 108-110.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	METHYL-PROPENYL-TRISULFIDE	Plant				--
0	SELENO-METHYL-SELENOMETHIONINE	Bulb				--
7	SUCCINIC-ACID	Leaf				Soldatenkov, S. V., Mazurova, T. A., Ranteleev, A. N. 1960. Organic Acids of Onion and Spinach. Trudy Petergof Biol. Inst., Leningrad Gosudarst Univ Im AA Zhdanova, 18: 55-61.
2	PROPIONALDEHYDE	Bulb				Wilkins, W. F. 1964. Isolation and Identification of the Lachrymogenic Compound of Onion. Cornell Univ., Agr. Expt. Sta. Mem. No., 385: 31 pp.
0	3,4-DIMETHYLTHIOPHENE	Essential Oil				Albrand, M., Dubois, P., Etievant, P., Gelin, R., Tokarska, B. 1980. Identification of a New Volatile Compound in Onion (<i>Allium cepa</i>) and Leek (<i>Allium porum</i>): 3,4-dimethyl-2,5-dioxo-2,5-dihydrothiophene. J. Agric. Food Chem., 28(5): 1037-1038.
0	1-(PROPYL-DITHIO)-PROPANE	Essential Oil				Albrand, M., Dubois, P., Etievant, P., Gelin, R., Tokarska, B. 1980. Identification of a New Volatile Compound in Onion (<i>Allium cepa</i>) and Leek (<i>Allium porum</i>): 3,4-dimethyl-2,5-dioxo-2,5-dihydrothiophene. J. Agric. Food Chem., 28(5): 1037-1038.
0	TRANS-CIS-5-ETHYL-4,6,7-TRITHIA-2,8-DECADIENE-4-S-OXIDE	Bulb				--
0	PAEONIDIN-GLYCOSIDE	Bulb				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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2,4-DIMETHYLTHIOPHENE	Bulb				Kimura, K., Nishimura, H., Kimura, I., Iwata, I., Mizutani, J. 1984. Flavor Components of Roasted Onion. I. Changes in Flavor Components of Onion by Roasting. Nippon Eiyō Shokuryō Gakkaishi, 37(4): 343-347.
25	P-COUMARIC-ACID	Leaf				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
15	MALIC-ACID	Leaf				Soldatenkov, S. V., Mazurova, T. A., Ranteleev, A. N. 1960. Organic Acids of Onion and Spinach. Trudy Petergof Biol. Inst., Leningrad Gosudarst Univ Im AA Zhdanova, 18: 55-61.
0	S-(BETA-CARBOXYBETA-METHYL-ETHER)-CYSTEINE	Bulb				--
0	4-HYDROXY-BENZOIC-ACID	Root				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
0	METHYL-METHANE-THIOSULFINATE	Fruit Juice				Schmidt, N. E., et. al. 1996. Rapid Extraction Method of Quantitating the Lachrymatory Factor of Onion Using Gas Chromatography. J. Agric. Food Chem., 44(9): 2690-2693.
0	QUERCETIN-3-O-SOPHOROSIDE-7-O-GLUCURONIDE	Epidermis				Urushibara, S. I., Kitayama, Y., Watanabe, T., Okuno, T., Watarai, A., Matsumoto, T. 1992. New Flavonol Glycosides, Major Determinants Inducing the Green Fluorescence in the Guard Cells of Allium cepa. Tetrahedron Lett., 33(9): 1213-1216.
0	1(F)-BETA-FRUCTOSYL-SUCROSE	Bulb				Bacon, J. S. D. 1959. Trisaccharide Fraction of Some Monocotyledons. Biochem. J., 73: 507-514.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	STIGMAST-7-EN-3-BETA-OL	Seed				Kintia, P. K., Degtiaryova, L. P., Balashova, N. N., Shvets, S. A. 1987. Sterols and Steroidal Glycosides of Bulb Onion Seeds. <i>Fecs. Int. Conf. Chem. Biotechol. Biol. Act. Nat. Prod., (Proc.)</i> 3rd: 166-170.
0	CHOLEST-7-EN-3-BETA-OL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. <i>Phytochemistry</i> , 16: 140-141.
3	DI-N-PROPYL-DISULFIDE	Bulb				Wilkens, W. F. 1962. The Isolation and Identification of the Lachrymogenic Compound of Onion. <i>Diss. Abstr. Int. B</i> , 22: 3978.
0	KAEMPFEROL-4'-O-BETA-D-GLUCOSIDE	Bulb				--
0	ALLYL-PROPENYL-DISULFIDE	Bulb				Leung, A.Y., <i>Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics</i> , John Wiley & Sons, New York, 1980.
0	3,4-DIMETHYL-2,5-DIOXO-2,5-DIHYDROTHIOPHENE	Essential Oil				Albrand, M., Dubois, P., Etievant, P., Gelin, R., Tokarska, B. 1980. Identification of a New Volatile Compound in Onion (<i>Allium cepa</i>) and Leek (<i>Allium porum</i>): 3,4-dimethyl-2,5-dioxo-2,5-dihydrothiophene. <i>J. Agric. Food Chem.</i> , 28(5): 1037-1038.
2	ASPARAGINE	Bulb				--
0	GAMMA-L-GLUTAMYL-ISOLEUCINE	Bulb				--
0	31-NORLANOSTENOL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. <i>Phytochemistry</i> , 16: 140-141.
0	TULIPOSIDE-B	Root				Slob, A., Jekel, B., De Jong, B., Schlatmann, E. 1975. On the Occurrence of Tuliposides in the Liliiflorae. <i>Phytochemistry</i> , 14: 1997-2005.
3	CYCLOEUCALENOL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. <i>Phytochemistry</i> , 16: 140-141.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	GLUTAMIC-ACID	Bulb				Thomas, D. J., Parkin, K. L. 1994. Quantification of Alk(en)yl-L-Cysteine Sulfoxides and Related Amino Acids in Alliums by High-Performance Liquid Chromatography. J. Agr. Food Chem., 42(8): 1632-1638.
0	METHYL-DITHIO-METHANE	Essential Oil				Albrand, M., Dubois, P., Etievant, P., Gelin, R., Tokarska, B. 1980. Identification of a New Volatile Compound in Onion (<i>Allium cepa</i>) and Leek (<i>Allium porum</i>): 3,4-dimethyl-2,5-dioxo-2,5-dihydrothiophene. J. Agric. Food Chem., 28(5): 1037-1038.
0	SELENO-METHYL-SELENOCYSTEINE	Bulb				--
2	CAMPESTEROL	Seed				Kintia, P. K., Degtiaryova, L. P., Balashova, N. N., Shvets, S. A. 1987. Sterols and Steroidal Glycosides of Bulb Onion Seeds. Fecs. Int. Conf. Chem. Biotechol. Biol. Act. Nat. Prod., (Proc.) 3rd: 166-170.
12	STIGMASTEROL	Seed				Kintia, P. K., Degtiaryova, L. P., Balashova, N. N., Shvets, S. A. 1987. Sterols and Steroidal Glycosides of Bulb Onion Seeds. Fecs. Int. Conf. Chem. Biotechol. Biol. Act. Nat. Prod., (Proc.) 3rd: 166-170.
0	PROPIONAL	Bulb				Wilkens, W. F. 1962. The Isolation and Identification of the Lachrymogenic Compound of Onion. Diss. Abstr. Int. B, 22: 3978.
0	ABSCISIC-ACID	Bulb				Karmelyuk, L. V., Fel'dman, A. L., Gusar, Z. D., Markh, A. T., Korableva, N. P. 1982. Determination of Abscisic Acid in Common Onion Tissues. Fiziol Biokhim Kul't Rast, 14: 295-298.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	TRANS-1-(1-PROPENYL-DITHIO)-PROPANE	Essential Oil				Albrand, M., Dubois, P., Etievant, P., Gelin, R., Tokarska, B. 1980. Identification of a New Volatile Compound in Onion (<i>Allium cepa</i>) and Leek (<i>Allium porum</i>): 3,4-dimethyl-2,5-dioxo-2,5-dihydrothiophene. <i>J. Agric. Food Chem.</i> , 28(5): 1037-1038.
4	TRANS-5-ETHYL-4,6,7-TRITHIA-2-DECENE-4-S-OXIDE	Bulb				--
0	2,3-DIMETHYLTHIOPHENE	Bulb				Kimura, K., Nishimura, H., Kimura, I., Iwata, I., Mizutani, J. 1984. Flavor Components of Roasted Onion. I. Changes in Flavor Components of Onion by Roasting. <i>Nippon Eiyu Shokuryo Gakkaishi</i> , 37(4): 343-347.
0	THIOPROPIONAL-S-OXIDE	Bulb				--
0	GAMMA-L-GLUTAMYL-L-ARGININE	Bulb				Matikkala, E. J., Virtanen, A. I. 1970. Isolation of gamma-l-glutamyl-l-arginine and gamma-l-glutamyl-s-(2-carboxy-n-propyl)-l-cysteine from <i>Allium cepa</i> (Onion). <i>Suomen Kemistilehti</i> , 43(11): 435-438.
15	MALIC-ACID	Bulb				Soldatenkov, S. V., Mazurova, T. A., Ranteleev, A. N. 1960. Organic Acids of Onion and Spinach. <i>Trudy Petergof Biol. Inst., Leningrad Gosudarst Univ Im AA Zhdanova</i> , 18: 55-61.
0	DIPROPENYL-SULFIDE	Bulb				Wealth of India.
0	4-HYDROXY-BENZOIC-ACID	Bulb				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. <i>Curr. Sci.</i> , 33(15): 471-472.
47	BETA-SITOSTEROL	Seed				Kintia, P. K., Degtiaryova, L. P., Balashova, N. N., Shvets, S. A. 1987. Sterols and Steroidal Glycosides of Bulb Onion Seeds. <i>Fecs. Int. Conf. Chem. Biotechnol. Biol. Act. Nat. Prod.</i> , (Proc.) 3rd: 166-170.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALPHA-SITOSTEROL	Bulb				Smocziewiczowa, A., Nitschke, D. 1978. Study of Saponins and Sapogenins in Onions. Zesz Nauk Akad Ekon Poznaniu Ser, 1(73): 40-43.
1	PYRUVIC-ACID	Bulb				Malkki, Y., Nikkila, O. E., Aalto, M. 1978. The Composition and Aroma of Onions and Influencing Factors. J. Sci. Agr. Soc. Finland, 50: 103-.
0	BRASSICASTEROL	Seed				Kintia, P. K., Degtiaryova, L. P., Balashova, N. N., Shvets, S. A. 1987. Sterols and Steroidal Glycosides of Bulb Onion Seeds. Fecs. Int. Conf. Chem. Biotechol. Biol. Act. Nat. Prod., (Proc.) 3rd: 166-170.
0	GLUTAN	Bulb				--
0	PROPAN-1-OL	Bulb				--
16	ACETIC-ACID	Bulb				Wilkens, W. F. 1964. Isolation and Identification of the Lachrymogenic Compound of Onion. Cornell Univ., Agr. Expt. Sta. Mem. No., 385: 31 pp.
0	DIMETHYL-TRISULFIDE	Essential Oil				Jirovetz, L., Koch, H. P., Jager, W., Remberg, G. 1992. Investigations of German Onion Oil by GC-FID, GC-MS and GC-FTIR. Pharmazie, 47(6): 455-456.
0	CEPOSIDE-D	Seed				--
0	CYCLOARTANOL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. Phytochemistry, 16: 140-141.
0	KAEMPFEROL-4',7-DI-O-BETA-D-GLUCOSIDE	Bulb				Tissut, M., Ravanel, P. 1980. Assessment of Flavonols in Adult Leaves of Several Vegetative Vacuoles. Phytochemistry, 19: 2077-2081.
2	ALLYLMETHYLSULFIDE	Bulb				Wealth of India.
5	24-METHYLENE-CYCLOARTANOL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. Phytochemistry, 16: 140-141.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	GAMMA-L-GLUTAMYL-CYSTEINE	Bulb				Virtanen, A. I., Matikkala, B. J. 1961. New gamma-l-glutamyl Petides in Onion (<i>Allium cepa</i>). III. Suomen Kemistilehti, 34B: 53-54.
0	31-NORCYCLOARTENOL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. <i>Phytochemistry</i> , 16: 140-141.
1	TULIPOSIDE-A	Root				Slob, A., Jekel, B., De Jong, B., Schlatmann, E. 1975. On the Occurrence of Tuliposides in the Liliiflorae. <i>Phytochemistry</i> , 14: 1997-2005.
7	CYCLOARTENOL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. <i>Phytochemistry</i> , 16: 140-141.
7	GLUCOSE	Leaf				Osman, S. A. 1980. Chemical and Biological Studies of Onion and Garlic in an Attempt to Isolate a Hypoclycaemic Extract. Abstr. 4th Asian Symp. Med. Plants Spices Bangkok, Thailand, September 15-19: 117.
0	METHYL-CIS-PROPENYL-DISULFIDE	Plant				--
0	SELENO-METHIONINE	Bulb				--
102	CAFFEIC-ACID	Root				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. <i>Curr. Sci.</i> , 33(15): 471-472.
12	STIGMASTEROL	Seed Oil				Grujic-Injac, B., Basarevic-Dinic, L., Lajsic, S., Stefanovic, D. 1985. Chemical Analysis of Seed Oil of the Onion (<i>Allium cepa</i>). <i>Hrana Ishrana</i> , 25: 167-169 (Inst Ishr Vet Fak Belgrade, Yugoslavia)
0	PROPANE-1-THIOL	Bulb				Wilkins, W. F. 1962. The Isolation and Identification of the Lachrymogenic Compound of Onion. <i>Diss. Abstr. Int. B</i> , 22: 3978.
0	2,3-DIMETHYL-5,6-DITHIA-BICYCLO(2,2,1)HEXANE-5-OXIDE	Bulb				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	THIOPROPANAL-S-OXIDE	Bulb				--
23	CITRIC-ACID	Bulb				Soldatenkov, S. V., Mazurova, T. A., Ranteleev, A. N. 1960. Organic Acids of Onion and Spinach. Trudy Petergof Biol. Inst., Leningrad Gosudarst Univ Im AA Zhdanova, 18: 55-61.
8	FRUCTOSE	Leaf				Osman, S. A. 1980. Chemical and Biological Studies of Onion and Garlic in an Attempt to Isolate a Hypoclycaemic Extract. Abstr. 4th Asian Symp. Med. Plants Spices Bangkok, Thailand, September 15-19: 117.
0	DIPROPENYL-DISULPHIDE	Bulb				Wealth of India.
0	4-HYDROXY-BENZOIC-ACID	Leaf				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
47	BETA-SITOSTEROL	Seed Oil				Grujic-Injac, B., Basarevic-Dinic, L., Lajsic, S., Stefanovic, D. 1985. Chemical Analysis of Seed Oil of the Onion (<i>Allium cepa</i>). Hrana Ishrana, 25: 167-169 (Inst Ishr Vet Fak Belgrade, Yugoslavia)
0	METHYL-TRANS-PROPENYL-TRISULFIDE	Bulb				Wealth of India.
10	ALPHA-AMYRIN	Bulb				Smocziewiczowa, A., Nitschke, D. 1978. Study of Saponins and Sapogenins in Onions. Zesz Nauk Akad Ekon Poznaniu Ser, 1(73): 40-43.
25	P-COUMARIC-ACID	Bulb				--
5	GLUTAMINE	Bulb				--
0	PROP-TRANS-ENYL-PROPYL-TRISULFIDE	Bulb				Kimura, K., Nishimura, H., Kimura, I., Iwata, I., Mizutani, J. 1984. Flavor Components of Roasted Onion. I. Changes in Flavor Components of Onion by Roasting. Nippon Eiyō Shokuryō Gakkaishi, 37(4): 343-347.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ACETAL	Bulb				Wilkins, W. F. 1962. The Isolation and Identification of the Lachrymogenic Compound of Onion. Diss. Abstr. Int. B, 22: 3978.
2	DIMETHYL-SULFIDE	Essential Oil				Schultz, O. E., Mohrmann, H. L. 1965. Analysis of Constituents of Garlic <i>Allium sativum</i> . II. Gas Chromatography of Garlic Oil. <i>Pharmazie</i> , 20(7): 441-447.
1	N-PROPYL-MERCAPTAN	Bulb				Nishimura, H., Mizutani, J. 1975. Effect of Gamma-Irradiation on Development of Lachrymator of Onion. <i>Agric. Biol. Chem.</i> , 39: 2245-.
0	CEPAENES	Bulb				--
23	CITRIC-ACID	Leaf				Soldatenkov, S. V., Mazurova, T. A., Ranteleev, A. N. 1960. Organic Acids of Onion and Spinach. <i>Trudy Petergof Biol. Inst., Leningrad Gosudarst Univ Im AA Zhdanova</i> , 18: 55-61.
0	KAEMPFEROL-3,4'-DI-O-BETA-D-GLUCOSIDE	Bulb				Tissut, M., Ravanel, P. 1980. Assessment of Flavonols in Adult Leaves of Several Vegetative Vacuoles. <i>Phytochemistry</i> , 19: 2077-2081.
2	ALLYL-METHYL-DISULFIDE	Bulb				Wealth of India.
0	ARACHIDIC-ACID	Seed Oil				Reddy, P. N., Azeemoddin, G., Rao, S. D. T. 1989. Processing and Analysis of Onionseed (<i>Allium cepa</i>) and its Fixed Oil. <i>J. Amer. Oil Chem. Soc.</i> , 66(3): 365.
43	PROTOCATECHUIC-ACID	Leaf				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. <i>Curr. Sci.</i> , 33(15): 471-472.
0	GAMMA-L-GLUTAMYL-ARGININE	Bulb				--
0	3,4-DIMETHYLTHIOPHENE	Bulb				Leung, A.Y., <i>Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics</i> , John Wiley & Sons, New York, 1980.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	TSEPOSIDES	Seed				Kintia, P. K., Degtiaryova, L. P., Balashova, N. N., Shvets, S. A. 1987. Sterols and Steroidal Glycosides of Bulb Onion Seeds. Fecs. Int. Conf. Chem. Biotechol. Biol. Act. Nat. Prod., (Proc.) 3rd: 166-170.
3	CYCLOALLIIN	Bulb				--
0	GLUCOFRUCTAN	Leaf				Osman, S. A. 1980. Chemical and Biological Studies of Onion and Garlic in an Attempt to Isolate a Hypoclycaemic Extract. Abstr. 4th Asian Symp. Med. Plants Spices Bangkok, Thailand, September 15-19: 117.
0	METHYL-ALLIIN	Bulb				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.
0	METHYL-CIS-PROPENYL-TRISULFIDE	Bulb				--
0	SELENO-HOME-CYSTINE	Plant				--
102	CAFFEIC-ACID	Leaf				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
9	OXALIC-ACID	Leaf				Gad, S. S., Esmat El-Zalaki, M., Hohamed, M. S., Mohasseb, S. Z. 1982. Oxalate Content of Some Leafy Vegetables and Dry Legumes Consumed Widely in Egypt. Food Chem., 8(3): 169-177. (Coll. Agric. Alexandria Univ. Ale.)
0	CIS-PROPANETHIOL-S-OXIDE	Bulb				--
61	FERULIC-ACID	Root				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
0	DIMETHYL-FURAN	Essential Oil				Wealth of India.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2-METHYL-BUT-2-EN-1-AL	Essential Oil				Albrand, M., Dubois, P., Etievant, P., Gelin, R., Tokarska, B. 1980. Identification of a New Volatile Compound in Onion (<i>Allium cepa</i>) and Leek (<i>Allium porum</i>): 3,4-dimethyl-2,5-dioxo-2,5-dihydrothiophene. <i>J. Agric. Food Chem.</i> , 28(5): 1037-1038.
32	ALPHA-TOCOPHEROL	Seed Oil				Grujic-Injac, B., Basarevic-Dinic, L., Lajsic, S., Stefanovic, D. 1985. Chemical Analysis of Seed Oil of the Onion (<i>Allium cepa</i>). <i>Hrana Ishrana</i> , 25: 167-169 (Inst Ishr Vet Fak Belgrade, Yugoslavia)
0	METHYL-TRANS-PROPENYL-DISULFIDE	Bulb				Wealth of India.
3	ALLYL-PROPYL-DISULFIDE	Bulb				--
0	2,3-DIMETHYL-(DL)-BUTANE-CIS-1-CIS-DITHIAL-S,S'-DIOXIDE	Bulb				Block, R., Bayer, T. 1990. (z,z)-d-1,2,3-dimethyl-1,4-butanedithial-s,s'-dioxide: A Novel Biologically Active Organosulfur Compound from Onion. <i>J. Amer. Chem. Soc.</i> , 112(11): 4584-4585.
0	BETA-TOCOPHEROL	Seed				--
7	GLUCOSE	Bulb				Osman, S. A. 1980. Chemical and Biological Studies of Onion and Garlic in an Attempt to Isolate a Hypoclycaemic Extract. <i>Abstr. 4th Asian Symp. Med. Plants Spices Bangkok, Thailand, September 15-19: 117.</i>
0	PROP-TRANS-ENYL-PROPYL-DISULFIDE	Bulb				Kimura, K., Nishimura, H., Kimura, I., Iwata, I., Mizutani, J. 1984. Flavor Components of Roasted Onion. I. Changes in Flavor Components of Onion by Roasting. <i>Nippon Eiyo Shokuryo Gakkaishi</i> , 37(4): 343-347.
3	ABSCISSIC-ACID	Bulb				--
2	DIMETHYL-DISULFIDE	Bulb				--
0	MYROSINASE	Bulb				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
22	CATECHOL	Bulb				Link, K. P., Walker, J. C. 1933. The Isolation of Catechol from Pigmented Onion Scales and its Significance in Relation to Disease Resistance in Onions. J. Biol. Chem., 100: 379-383.
1	CHOLESTEROL	Seed				Kintia, P. K., Degtiaryova, L. P., Balashova, N. N., Shvets, S. A. 1987. Sterols and Steroidal Glycosides of Bulb Onion Seeds. Fecs. Int. Conf. Chem. Biotechnol. Biol. Act. Nat. Prod., (Proc.) 3rd: 166-170.
0	5-METHYL-2-N-HEXYL-2,3-DIHYDROFURAN-3-ONE	Bulb				Wealth of India.
0	9,10,13-TRIHYDROXY-OCTADEC-11-ENOIC-ACID	Bulb				--
0	PROSTAGLANDIN-F	Bulb				Pobozsny, K., Tetenyi, P., Hethelyi, I., Kocsar, L., Mann, V. 1979. Biologically Active Substances: Investigations into the Prostaglandin Content of Allium Species. I. Herba Hung, 18(2): 71-81.
0	GAMMA-GLUTAMYL-S-METHYL-CYSTEINE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	3,4-DIMETHYL-2,5-DIOXO-2,5-DIHYDROTHIOPHENE	Bulb				--
0	CYANIDIN-MONOGLYCOSIDE	Bulb				Fuleki, T. 1969. The Anthocyanins of Strawberry, Rhubarb, Radish, and Onion. J. Food Sci., 34(4): 365-369.
0	GAMMA-GLUTAMYL-S-BETA-CARBOXY-BETA-METHYL-ETHYL-CYSTEINYL-GLYCINE	Bulb				Virtamen, A. I., Matikkala, E. J. 1960. New Gamma-Glutamyl Peptides in Onion (<i>Allium cepa</i>). I. Gamma-glutamylphenylalanine and gamma-glutamyl-s-(beta-carboxy-beta-methylethyl)-cysteinylglycine. Suomen Kemistilehti, 33B: 83-84.
0	METHIONINE-SULFONE	Bulb				Renis, H. E., Henze, R. E. 1957. Studies on Sulfur Compounds from Onion. Diss. Abstr. Int. B, 17: 1456-1457.
0	METHANETHIOL	Bulb				Wealth of India.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	ALLYL-PROPYL-DISULFIDE	Essential Oil				Wilcox, B. F., Joseph, P. K., Augusti, K. T. 1984. Effects of Allylpropyl Disulphide Isolated from <i>Allium cepa</i> Linn. on High-Fat Fed Rats. <i>Indian J. Biochem. Biophys.</i> , 21(3): 214-216.
4	SPIRAEOSIDE	Epidermis				Ito, Y., Ono, M., Masuoka, C., Yahara, S., Nohara, T. 1995. Hyaluronidase Inhibitors of Onion (<i>Allium cepa</i> L.) Skin. <i>Kyushu Tokai Daigaku Nogakubu Kiyo</i> , 14: 43-48.
6	MYRISTIC-ACID	Seed Oil				Reddy, P. N., Azeemoddin, G., Rao, S. D. T. 1989. Processing and Analysis of Onionseed (<i>Allium cepa</i>) and its Fixed Oil. <i>J. Amer. Oil Chem. Soc.</i> , 66(3): 365.
2	QUERCETIN-3,4'-DIGLUCOSIDE	Bulb				--
0	CIS-3,5-DIETHYL-1,2,4-TRITHIOLANE	Leaf				Chemical Constituents of Oriental Herbs (3 diff. books)
61	FERULIC-ACID	Leaf				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. <i>Curr. Sci.</i> , 33(15): 471-472.
0	LOPHENOL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. <i>Phytochemistry</i> , 16: 140-141.
0	DIISOPROPYL-TRISULFIDE	Bulb				Wealth of India.
0	RIBOSE	Bulb				Sinha, A. 1959. Chemical Examination of <i>Allium cepa</i> . I. Glycosidic and Sugar Fractions. <i>Indian J. Appl. Chem.</i> , 22: 89-91.
0	S-(BETA-CARBOXY-BETA-METHYL-ETHYL)-CYSTEINE	Bulb				Virtanen, A. I., Matikkala, E. J. 1960. New Gamma-Glutamyl Peptides in Onion (<i>Allium cepa</i>). I. Gamma-glutamylphenylalanine and gamma-glutamyl-s-(beta-carboxy-beta-methylethyl)-cysteinyglycine. <i>Suomen Kemistilehti</i> , 33B: 83-84.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2,4-DIMETHYLTHIOPHENE	Essential Oil				Albrand, M., Dubois, P., Etievant, P., Gelin, R., Tokarska, B. 1980. Identification of a New Volatile Compound in Onion (<i>Allium cepa</i>) and Leek (<i>Allium porum</i>): 3,4-dimethyl-2,5-dioxo-2,5-dihydrothiophene. <i>J. Agric. Food Chem.</i> , 28(5): 1037-1038.
0	1-PROPYLTRITHIO-PROPANE	Essential Oil				Albrand, M., Dubois, P., Etievant, P., Gelin, R., Tokarska, B. 1980. Identification of a New Volatile Compound in Onion (<i>Allium cepa</i>) and Leek (<i>Allium porum</i>): 3,4-dimethyl-2,5-dioxo-2,5-dihydrothiophene. <i>J. Agric. Food Chem.</i> , 28(5): 1037-1038.
0	GLUCOFRUCTAN	Bulb				Osman, S. A. 1980. Chemical and Biological Studies of Onion and Garlic in an Attempt to Isolate a Hypoclycaemic Extract. <i>Abstr. 4th Asian Symp. Med. Plants Spices Bangkok, Thailand, September 15-19: 117.</i>
0	PROP-CIS-ENYL-PROPYL-TRISULFIDE	Bulb				Kimura, K., Nishimura, H., Kimura, I., Iwata, I., Mizutani, J. 1984. Flavor Components of Roasted Onion. I. Changes in Flavor Components of Onion by Roasting. <i>Nippon Eiyo Shokuryo Gakkaishi</i> , 37(4): 343-347.
0	9,10,13-TRIHYDROXY-OCTADEC-11-ENOIC-ACID	Bulb				--
0	DIHYDROALLIIN	Bulb				Leung, A.Y., <i>Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics</i> , John Wiley & Sons, New York, 1980.
9	SINAPIC-ACID	Bulb				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. <i>Curr. Sci.</i> , 33(15): 471-472.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CEPAENE-4-B	Bulb				Bayer, T., Wagner, H., Wray, V., Dorsch, W. 1988. Inhibitors of Cyclo-Oxygenase and Lipoxygenase in Onions. Lancet, 8616: 906.
5	SAPONINS	Bulb				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
12	PYROCATECHOL	Bulb				Hermann, K. 1958. Flavonols and Phenols of the Onion (<i>Allium cepa</i>). Arch. Pharm. (Weinheim), 291: 238-247.
0	SELENO-METHYL-SELENOMETHIONINE	Plant				Hamilton, J. W. 1975. Chemical Examination of Seleniferous Onions, <i>Allium cepa</i> . Adv. Front Plant Sci., 30: 189-.
2	PROSTAGLANDIN-E-1	Bulb				Ustunes, L., Claeys, M., Laekeman, G., Herman, A.G., Vlietinck, A.J., Ozer, A. 1985. Isolation and Identification of Two Isomeric Trihydroxy Octadecenoic Acids with Prostaglandin E-Like Activity from Onion Bulbs(<i>Allium cepa</i>). Prostaglandins, 29(5):847-865
112	ASCORBIC-ACID	Bulb				--
0	GAMMA-GLUTAMYL-PHENYLALANINE-ETHYL-ESTER	Bulb				--
0	PEROXIDASE	Bulb				--
0	28-ISOFUCOSTEROL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. Phytochemistry, 16: 140-141.
0	CYANIDIN-DIGLYCOSIDE	Bulb				Fuleki, T. 1969. The Anthocyanins of Strawberry, Rhubarb, Radish, and Onion. J. Food Sci., 34(4): 365-369.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	ALPHA-LINOLENIC-ACID	Bulb				Ustunes, L., Claeys, M., Laekeman, G., Herman, A.G., Vlietinck, A.J., Ozer, A. 1985. Isolation and Identification of Two Isomeric Trihydroxy Octadecenoic Acids with Prostaglandin E-Like Activity from Onion Bulbs(<i>Allium cepa</i>). Prostaglandins, 29(5):847-865
0	METHIONINE-METHYLSULFONIUM	Plant				--
0	SAPONIN	Bulb				--
0	ALLOSIDE-B	Bulb				Aizikov, M. I., Kravets, S. D., Prokhorova, I. R., Kurmukov, A. G. 1995. Structure and Hypolipidemic Activity of Alloside B Isolated from Onion. Khim Farm ZH, 29(8): 34-35.
9	SINAPIC-ACID	Root				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
3	XYLOSE	Bulb				Sinha, A. 1959. Chemical Examination of <i>Allium cepa</i> . I. Glycosidic and Sugar Fractions. Indian J. Appl. Chem., 22: 89-91.
0	METHYL-PROPYL-TETRASULFIDE	Essential Oil				Jirovetz, L., Koch, H. P., Jager, W., Remberg, G. 1992. Investigations of German Onion Oil by GC-FID, GC-MS and GC-FTIR. Pharmazie, 47(6): 455-456.
0	PROPANAL	Bulb				Wealth of India.
0	DIPROPYLTETRASULFIDE	Essential Oil				Jirovetz, L., Koch, H. P., Jager, W., Remberg, G. 1992. Investigations of German Onion Oil by GC-FID, GC-MS and GC-FTIR. Pharmazie, 47(6): 455-456.
4	CIS-N-PROPYLSULPHINOTHIOIC-ACID-S-1-PROPENYLESTER	Bulb				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	GAMMA-L-GLUTAMYL-S-(1-PROPENYL)-CYSTEINE-SULFOXIDE	Bulb				Virtanen, A. I., Matikkala, E. J. 1961. Structure of the Gamma-Glutamyl Peptide 4 Isolated from Onion (<i>Allium cepa</i>)-gamma-l-glutamyl-s-(1-propenyl)-cysteine sulfoxide. Suomen Kemistilehti, 34B: 84.
0	BETA-TOCOPHEROL	Seed Oil				Grujic-Injac, B., Basarevic-Dinic, L., Lajsic, S., Stefanovic, D. 1985. Chemical Analysis of Seed Oil of the Onion (<i>Allium cepa</i>). Hrana Ishrana, 25: 167-169 (Inst Ishr Vet Fak Belgrade, Yugoslavia)
0	1-O-P-COUMAROYL-BETA-D-GLUCOSE	Leaf				--
6	TARTARIC-ACID	Bulb				--
0	CIS-2,3-DIMETHYL-5,6-DITHIA-CYCLO(2,2,1)HEPTANE-5-OXIDE	Bulb				Dorsch, W., et al. 1988. Anti-Asthmatic Effects of Onions. Alk(en)ylsufinothioic Acid Alk(en)yl-Esters Inhib. Histamine Rel. Leukotriene & Thromboxane Biosyn. in Vitro and Counteract PAF & Allergen-Ind. Bronch. Obst. in Vivo. Biochem. Pharmacol., 37:4479-4486.
0	GIBBERELLIN-A-4	Root				Das, V. S. R., Rao, J. V. S. 1965. Onion Root Gibberellins. Curr. Sci., 34(1): 28.
0	PROP-CIS-ENYL-PROPYL-DISULFIDE	Bulb				Kimura, K., Nishimura, H., Kimura, I., Iwata, I., Mizutani, J. 1984. Flavor Components of Roasted Onion. I. Changes in Flavor Components of Onion by Roasting. Nippon Eiyo Shokuryo Gakkaishi, 37(4): 343-347.
0	9,12,13-TRIHYDROXY-OCTADEC-10-ENOIC-ACID	Bulb				--
28	DIALLYL-TRISULFIDE	Essential Oil				Schultz, O. E., Mohrmann, H. L. 1965. Analysis of Constituents of Garlic <i>Allium sativum</i> . II. Gas Chromatography of Garlic Oil. Pharmazie, 20(7): 441-447.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CEPAENE-4-A	Bulb				Bayer, T., Wagner, H., Wray, V., Dorsch, W. 1988. Inhibitors of Cyclo-Oxygenase and Lipoxygenase in Onions. Lancet, 8616: 906.
5	ZEAXANTHIN	Bulb				Granado, F., Olmedilla, B., Blanco, I., Rojas-Hidalgo, E. 1992. Carotenoid Composition in Raw and Cooked Spanish Vegetables. J. Agr. Food Chem., 40(11): 2135-2140.
0	SELENO-METHYL-SELENOCYSTEINE	Plant				Hamilton, J. W. 1975. Chemical Examination of Seleniferous Onions, Allium cepa. Adv. Front Plant Sci., 30: 189-.
0	PROSTAGLANDIN-B	Bulb				Pobozsny, K., Tetenyi, P., Hethelyi, I., Kocsar, L., Mann, V. 1979. Biologically Active Substances: Investigations into the Prostaglandin Content of Allium Species. I. Herba Hung, 18(2): 71-81.
0	GAMMA-GLUTAMYL-PHENYLALANINE	Bulb				--
0	PENTOSAN	Bulb				--
0	24-METHYLENE-CYCLOARTENOL	Bulb				--
0	TRANS-S-(1-PROPENYL)-CYSTEINE-SULFOXIDE	Bulb				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.
0	CYANIDIN-BIOSIDE	Bulb				Fuleki, T. 1969. The Anthocyanins of Strawberry, Rhubarb, Radish, and Onion. J. Food Sci., 34(4): 365-369.
0	SELENO-METHIONINE	Plant				Hamilton, J. W. 1975. Chemical Examination of Seleniferous Onions, Allium cepa. Adv. Front Plant Sci., 30: 189-.
1	ISORHAMNETIN-3-GLUCOSIDE	Bulb				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	S-PROPYL-CYSTEINE-SULFOXIDE	Bulb				Renis, H. E., Henze, R. E. 1957. Studies on Sulfur Compounds from Onion. Diss. Abstr. Int. B, 17: 1456-1457.
0	ALLIUM-CEPA-POLYSACCHARIDE	Bulb				Schnabl, H. 1977. Isolation and Identification of Soluble Polysaccharides in Epidermal Tissue of Allium cepa. Planta, 135: 307-.
9	SINAPIC-ACID	Leaf				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
10	XYLITOL	Bulb				Counsell, J. N., Robertson, D. J. 1976. Xylitol-A Sweetener Which is Kind to the Teeth. Food Process Ind., 45(54): 24-26.
0	METHYL-PROPYL-DISULFIDE	Essential Oil				Jirovetz, L., Koch, H. P., Jager, W., Remberg, G. 1992. Investigations of German Onion Oil by GC-FID, GC-MS and GC-FTIR. Pharmazie, 47(6): 455-456.
4	CIS-METHYLSULPHINOTHIOIC-ACID-S-1-PROPENYLESTER	Bulb				--
0	RHAMNOSE	Bulb				Sinha, A. 1959. Chemical Examination of Allium cepa. I. Glycosidic and Sugar Fractions. Indian J. Appl. Chem., 22: 89-91.
2	DIMETHYL-DISULFIDE	Essential Oil				Jirovetz, L., Koch, H. P., Jager, W., Remberg, G. 1992. Investigations of German Onion Oil by GC-FID, GC-MS and GC-FTIR. Pharmazie, 47(6): 455-456.
0	2,5-DIMETHYLTHIOPHENE	Essential Oil				Albrand, M., Dubois, P., Etievant, P., Gelin, R., Tokarska, B. 1980. Identification of a New Volatile Compound in Onion (Allium cepa) and Leek (Allium porum): 3,4-dimethyl-2,5-dioxo-2,5-dihydrothiophene. J. Agric. Food Chem., 28(5): 1037-1038.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	CALCIUM-OXALATE	Bulb				Walter-Levy, L., Strauss, R. 1954. Inorganic Deposits in Plants. C. R. Acad. Sci., 239: 897-.
24	ETHANOL	Bulb				--
64	OLEANOLIC-ACID	Bulb				--
0	1-O-FERULOYL-BETA-D-GLUCOSE	Leaf				--
0	CIS-1-(PROPENYL-DITHIO)-PROPANE	Essential Oil				Albrand, M., Dubois, P., Etievant, P., Gelin, R., Tokarska, B. 1980. Identification of a New Volatile Compound in Onion (<i>Allium cepa</i>) and Leek (<i>Allium porum</i>): 3,4-dimethyl-2,5-dioxo-2,5-dihydrothiophene. J. Agric. Food Chem., 28(5): 1037-1038.
4	DIPROPYL-DISULFIDE	Bulb				--
0	GAMMA-L-GLUTAMYL-VALINE	Bulb				--
0	6(G)-BETA-FRUCTOSYL-SUCROSE	Bulb				Bacon, J. S. D. 1959. Trisaccharide Fraction of Some Monocotyledons. Biochem. J., 73: 507-514.
25	DIALLYL-SULFIDE	Essential Oil				Schultz, O. E., Mohrmann, H. L. 1965. Analysis of Constituents of Garlic <i>Allium sativum</i> . II. Gas Chromatography of Garlic Oil. Pharmazie, 20(7): 441-447.
0	CEPAENE-3	Bulb				Bayer, T., Wagner, H., Wray, V., Dorsch, W. 1988. Inhibitors of Cyclo-Oxygenase and Lipoxygenase in Onions. Lancet, 8616: 906.
0	GAMMA-L-GLUTAMYL-L-VALINE	Bulb				Virtanen, A. I., Matikkala, B. J. 1961. New gamma-l-glutamyl Petides in Onion (<i>Allium cepa</i>). III. Suomen Kemistilehti, 34B: 53-54.
0	PROSTAGLANDIN-A	Bulb				Pobozsny, K., Tetenyi, P., Hethelyi, I., Kocsar, L., Mann, V. 1979. Biologically Active Substances: Investigations into the Prostaglandin Content of <i>Allium</i> Species. I. Herba Hung, 18(2): 71-81.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
4	TRANS-TRANS-5-ETHYL-4,6,7-TRITHIA-2,8-DECADIENE-4-S-OXIDE	Bulb				--