

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	Bulb	866000.0	918000.0	0.778867813617976	--
27	LINOLEIC-ACID	Seed Oil	575000.0	590600.0	0.7844920848789769	--
18	OLEIC-ACID	Seed Oil	260000.0	292900.0	-0.1478289753657865	--
27	LINOLEIC-ACID	Seed	103500.0	106200.0	-0.00790147227328753	Wealth of India.
0	FRUCTOSAN	Bulb	100000.0	400000.0	1.0	--
0	POLYSACCHARIDES	Bulb	100000.0	400000.0		--
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
0	PROTEIN	Leaf	18000.0	231000.0	0.19108914041232994	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
15	FIBER	Leaf	11000.0	141000.0	-0.2539378373860592	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	PROTEIN	Bulb	10940.0	162000.0	-1.0	--
4	SPIRAEOSIDE	Bulb	10000.0	11300.0		--
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
43	PROTocatechuic-ACID	Bulb	4500.0	17540.0		--
15	FIBER	Bulb	4400.0	126000.0	1.0	--
0	ASH	Bulb	4000.0	63000.0	-1.0	--
0	NITROGEN	Bulb	1700.0	17690.0		ACTA AGRIC SCAND SUPPL 22: 1980
0	QUERCETIN-3,4'-DI-O-BETA-D-GLUCOSIDE	Bulb	1700.0	5600.0		--
14	ARGININE	Bulb	1580.0	17222.0	-1.0	USDA's Ag Handbook 8 and sequelae)
14	POTASSIUM	Bulb	1514.0	22164.0	1.0	--
0	FAT	Bulb	1000.0	36079.0	1.0	--
3	ASPARTIC-ACID	Bulb	640.0	6967.0	-1.0	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	PUFA	Bulb	620.0	6005.0		USDA's Ag Handbook 8 and sequelae)
4	LYSINE	Bulb	560.0	6104.0	-1.0	USDA's Ag Handbook 8 and sequelae)
12	GLYCINE	Bulb	490.0	5341.0	1.0	--
28	CALCIUM	Leaf	420.0	5385.0	-0.8918247706535197	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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)
112	ASCORBIC-ACID	Leaf	390.0	5000.0	0.020016189970703997	--
0	KILOCALORIES	Bulb	380.0	3750.0	1.0	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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)
3	ALANINE	Bulb	330.0	8597.0	1.0	USDA's Ag Handbook 8 and sequelae)
4	PHOSPHORUS	Leaf	310.0	5513.0	0.09963731108701822	--
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)
4	PHOSPHORUS	Bulb	275.0	4038.0	-1.0	--
3	VALINE	Bulb	270.0	2943.0	-1.0	--
0	SFA	Bulb	260.0	2520.0		USDA's Ag Handbook 8 and sequelae)
0	KILOCALORIES	Leaf	260.0	3330.0	0.5027842271594564	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
13	PALMITIC-ACID	Bulb	240.0	2325.0	-1.0	--
18	OLEIC-ACID	Bulb	230.0	2230.0	1.0	--
13	MUFA	Bulb	230.0	2230.0		USDA's Ag Handbook 8 and sequelae)
2	CYSTINE	Bulb	210.0	2289.0	1.0	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	CALCIUM	Bulb	200.0	3008.0	0.11970003608893207	--
7	HISTIDINE	Bulb	190.0	2071.0	-1.0	USDA's Ag Handbook 8 and sequelae)
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	--
47	BETA-SITOSTEROL	Bulb	120.0	510.0	-1.0	--
0	QUERCETIN-4-O-BETA-D-GLUCOSIDE	Bulb	100.0	800.0		--
15	METHIONINE	Bulb	100.0	1090.0	-1.0	--
14	SULFUR	Bulb	80.0	4075.0	-1.0	--
65	MAGNESIUM	Bulb	76.0	1230.0	0.7319115529256467	--
0	STRONTIUM	Bulb	57.0	162.0		--
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	Leaf	34.0	436.0	0.18456741976079077	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
8	STEARIC-ACID	Bulb	20.0	195.0		--
53	BETA-CAROTENE	Leaf	12.0	158.0	-0.4498575995747604	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
2	CAMPESTEROL	Bulb	10.0	50.0	-1.0	--
6	MYRISTIC-ACID	Bulb	10.0	100.0	-1.0	USDA's Ag Handbook 8 and sequelae)
1	SODIUM	Bulb	8.0	2052.0	1.4085638338778703	--
39	NIACIN	Leaf	7.0	90.0	-0.09123627617407809	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	BARIUM	Bulb	4.0	28.0		--
6	IRON	Bulb	2.0	135.0	0.7831452902858658	--
77	ZINC	Bulb	2.0	53.0	1.4104984605249231	--
0	VIT-B-6	Bulb	1.0	18.0		USDA's Ag Handbook 8 and sequelae)
4	BORON	Bulb	1.0	45.0	1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
11	PANTOTHENIC-ACID	Bulb	1.0	16.0	1.0	USDA's Ag Handbook 8 and sequela)
14	MANGANESE	Bulb	1.0	38.0	1.4045726642160135	--
7	SALICYLATES	Bulb	1.0	20.0	1.0	--
39	NIACIN	Bulb	1.0	75.0	1.0	--
0	BROMINE	Bulb	1.0	15.0		ACTA AGRIC SCAND SUPPL 22: 1980
4	SILICON	Bulb	1.0	75.0		ACTA AGRIC SCAND SUPPL 22: 1980
0	ZIRCONIUM	Bulb	0.76	1.0		--
31	THIAMIN	Leaf	0.5	6.4	-0.39693808734805064	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
15	RIBOFLAVIN	Bulb	0.4	15.0	1.0	--
32	ALPHA-TOCOPHEROL	Bulb	0.4	30.0	1.0	--
0	TITANIUM	Bulb	0.38	11.0		USDA's Ag Handbook 8 and sequela)
12	COPPER	Bulb	0.3	11.0	0.10619884881071792	--
31	THIAMIN	Bulb	0.3	6.0	-1.0	--
5	ALUMINUM	Bulb	0.3	385.0	1.0	--
11	LITHIUM	Bulb	0.152	0.324		--
0	RUBIDIUM	Bulb	0.14	6.6		ACTA AGRIC SCAND SUPPL 22: 1980
2	MOLYBDENUM	Bulb	0.1	2.3	1.0000000000000002	--
24	CHROMIUM	Bulb	0.057	4.0	1.0	--
3	NICKEL	Bulb	0.05	2.5	0.9999999999999996	--
0	FLUORINE	Bulb	0.04	0.8		ACTA AGRIC SCAND SUPPL 22: 1980
3	SILVER	Bulb	0.038	0.054		--
3	NICKEL	Seed	0.03	4.0	-0.14389814511946067	--
0	LEAD	Bulb	0.01	1.4		--
3	CADMIUM	Bulb	0.005	0.38		--
2	ARSENIC	Bulb	0.002	0.076		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	COBALT	Bulb	0.001	0.2	-1.0000000000000002	--
60	SELENIUM	Bulb	0.001	0.003	-1.0000000000000002	--
0	QUERCETIN-4',7-DI-O-BETA-D-GLUCOSIDE	Bulb	0.0	160.0		--
2	QUERCETIN-3-O-BETA-D-GLUCOSIDE	Bulb	0.0	40.0		Abstract (See species file)
53	BETA-CAROTENE	Bulb	0.0	52.0	0.9999999999999998	--
176	QUERCETIN	Bulb	0.0	48100.0	1.0	--
30	ANTHOCYANINS	Bulb				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
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	BRASSICASTEROL	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	TRANS-3,5-DIETHYL-1,2,4,-TRITHIOLANE	Leaf				Chemical Constituents of Oriental Herbs (3 diff. books)
16	ACETIC-ACID	Bulb				Wilkins, W. F. 1964. Isolation and Identification of the Lachrymogenic Compound of Onion. <i>Cornell Univ., Agr. Expt. Sta. Mem. No.</i> , 385: 31 pp.
0	S-PROP-1-ENYL-CYSTEINE-S-OXIDE	Bulb		26.0		--
0	GIBBERELLIN-A-4	Root				Das, V. S. R., Rao, J. V. S. 1965. Onion Root Gibberellins. <i>Curr. Sci.</i> , 34(1): 28.
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. <i>Pharmazie</i> , 20(7): 441-447.
0	NEODECANOIC-ACID	Bulb				Wealth of India.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CEPAENE-2-B	Bulb				Bayer, T., Wagner, H., Wray, V., Dorsch, W. 1988. Inhibitors of Cyclo-Oxygenase and Lipoxygenase in Onions. Lancet, 8616: 906.
0	CIS-PROPANETHIAL-S-OXIDE	Bulb				Block, E., Penn, R. E., Reville, L. K. 1979. Structure and Origin of the Onion Lachrymatory Factor. A Microwave Study. J. Amer. Chem. Soc., 101: 2200-2201.
64	OLEANOLIC-ACID	Bulb				--
14	SUCROSE	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	31-NORCYCLOARTENOL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. Phytochemistry, 16: 140-141.
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	GAMMA-GLUTAMYL-PHENYLALANINE	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	CYANIDIN-BIOSIDE	Bulb				Fuleki, T. 1969. The Anthocyanins of Strawberry, Rhubarb, Radish, and Onion. J. Food Sci., 34(4): 365-369.
21	ALLIIN	Essential Oil				Bekdairova, K. Z., Klyshev, L. K. 1982. Garlic Essential Oil and its Quantitative Analysis. Izv Akad Nauk Kaz Ssr Ser Biol, 1: 6-11.

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-.
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.
0	DIMETHYL-TRISULFIDE	Bulb				Carson, J. F., Wong, F. F. 1961. The Volatile Flavor Components of Onions. J. Agric. Food Chem., 9(2): 140-143.
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.
0	SELENO-HOMOCYSTINE	Plant				Hamilton, J. W. 1975. Chemical Examination of Seleniferous Onions, <i>Allium cepa</i> . Adv. Front Plant Sci., 30: 189-.
0	PELARGONIDIN-MONOGLYCOSIDE	Bulb				Fuleki, T. 1969. The Anthocyanins of Strawberry, Rhubarb, Radish, and Onion. J. Food Sci., 34(4): 365-369.
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.
2	METHANOL	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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
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.
0	2,3-DIMETHYL-5,6-DITHIA-BICYCLO(2,2,1)HEXANE-5-OXIDE	Bulb				--
24	ETHANOL	Bulb				--
4	TRANS-METHYLSULPHINOTHIOIC-ACID-S-1-PROPENYLESTER	Bulb				--
0	ALLYLTHIOL-SULFIDE	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 (Allium cepa). Biosci. Biotech. Biochem., 58(1): 221-222.
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)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	ACETAL	Bulb				Wilkins, W. F. 1962. The Isolation and Identification of the Lachrymogenic Compound of Onion. Diss. Abstr. Int. B, 22: 3978.
2	S-METHYL-CYSTEINE-SULFOXIDE	Bulb				Kumari, K., Augusti, K. T. 1995. Antidiabetic Effects of S-Methylcysteine Sulphoxide on Alloxan Diabetes. Planta Medica, 61(1): 72-74.
0	GAMMA-L-GLUTAMYL-VALINE	Bulb				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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. <i>Pharmazie</i> , 20(7): 441-447.
4	N-PROPYLSULPHINOTHIOIC-ACID-S-N-PROPYLESTER	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.
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. <i>J. Agr. Food Chem.</i> , 42(8): 1632-1638.
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	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.
1	QUINIC-ACID	Bulb				--
0	GAMMA-GLUTAMYL-LEUCINE	Bulb				Virtanen, A. I., Matikkala, B. J. 1961. New gamma-l-glutamyl Petides in Onion (<i>Allium cepa</i>). III. Suomen <i>Kemistilehti</i> , 34B: 53-54.
16	P-CYMENE	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.
0	CYANIDIN-3-O-LAMINARIBIOSIDE	Bulb				--
28	ADENOSINE	Bulb				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	MEVALONIC-ACID	Bulb		0.5		Wills, R. B. H., Scurr, E. V. 1975. Mevalonic Acid Concentrations in Fruit and Vegetable Tissues. <i>Phytochemistry</i> , 14: 1643.
14	SUCROSE	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.
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.
7	SUCCINIC-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.
0	DIMETHYLTETRASULFIDE	Essential Oil				--
24	CHROMIUM	Seed		4.8	0.016797185555398934	--
0	METHYL-CIS-PROPENYL-DISULFIDE	Bulb				Wealth of India.
24	PECTIN	Bulb				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
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 <i>Allium sativum</i> L. and related species. Williams & Wilkins, Baltimore. 329 pp.
1	MERCURY	Bulb		0.001	-1.0	--
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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
24	VANILLIC-ACID	Bulb		258.0	1.0	--
27	LINOLEIC-ACID	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.
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 Bilogically Active Organosulfur Compound from Onion. J. Amer. Chem. Soc., 112(11): 4584-4585.
0	TRANS-CIS-5-ETHYL-4,6,7-TRITHIA-2,8-DECADIENE-4-S-OXIDE	Bulb				--
0	ALLYLPROPYL-SULFIDE	Bulb				Wealth of India.
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.
0	BETA-TOCOPHEROL	Seed				--
0	TRANS-1-(PROPENYL-DITHIO)-PROPANE	Essential Oil				--
3	ABSCISSIC-ACID	Bulb				--
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.
0	GAMMA-L-GLUTAMYL-S-(2-CARBOXY-BETA-METHYL-ETHYL)-CYSTEINYL-GLYCINE-ETHYL-ESTER	Bulb				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
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.
3	MURAMIDASE	Leaf		0.3		LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. <i>Garlic- The Science and therapeutic application of Allium sativum L. and related species.</i> Williams & Wilkins, Baltimore. 329 pp.
0	CEPAENE-1	Bulb				--
13	P-HYDROXY-BENZOIC-ACID	Bulb		107.0	1.0	--
0	3,4-DIMETHYL-2,5-DIOXO-2,5-DIHYDROTHIOPHENE	Bulb				--
7	FUMARIC-ACID	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	CYANIDIN-3-O-BETA-D-DIGLYCOSIDE	Bulb				--
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	METHYLPROPYL-TRISULFIDE	Bulb				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
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	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. Pharmazie, 47(6): 455-456.
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 <i>Allium sativum</i> L. and related species. Williams & Wilkins, Baltimore. 329 pp.
14	MANGANESE	Seed		19.4	-0.425040968734703	--
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	ALLIOSPIROSIDE-D	Fruit		71.0		Kravets, S. D., et. al. 1988. Steroids of the Spirostan and Furostan Series of Plants of the <i>Allium</i> Genus. XXIII. Structure of Cepagenin and of Alliospirosides C and D from <i>Allium cepa</i> . Chem. Nat. Comp., 23(6): 700-706.
0	SELENOSIDE	Plant				--
0	HEXADECEN-1-OL	Seed				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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. J. Agric. Food Chem., 28(5): 1037-1038.
2	PROSTAGLANDIN-A-1	Bulb		1.0		--
0	EICOSEN-1-OL	Seed				--
4	TRANS-5-ETHYL-4,6,7-TRITHIA-2-DECENE-4-S-OXIDE	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	ALLYL-PROPENYL-DISULFIDE	Bulb				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
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 <i>Allium cepa</i> . Tetrahedron Lett., 33(9): 1213-1216.
0	9,10,13-TRIHYDROXY-OCTADEC-11-ENOIC-ACID	Bulb				--
0	S-ALLYL-CYSTEINE	Bulb				Renis, H. E., Henze, R. E. 1957. Studies on Sulfur Compounds from Onion. Diss. Abstr. Int. B, 17: 1456-1457.
0	GAMMA-L-GLUTAMYL-S-(2-CARBOXY-BETA-METHYLETHYL)-CYSTEINYL-GLYCINE	Bulb				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
0	D-MANNITOL	Bulb				--
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.
0	CAROTENE	Flower		28.0		Krylova, M. I. 1967. Carotenoids in the Reproductive Organs of Fertile and Sterile Onion Plants, Allium cepa. Bot. ZH., 52(9): 1340-1341.
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 (Allium cepa) and Leek (Allium porum): 3,4-dimethyl-2,5-dioxo-2,5-dihydrothiophene. J. Agric. Food Chem., 28(5): 1037-1038.
0	28-ISOFUCOSTEROL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. Phytochemistry, 16: 140-141.
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.
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.
12	COPPER	Seed		18.2	0.3070837559561808	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	PHYTOHORMONE	Bulb				--
0	METHYL-PROPYL-DISULFIDE	Bulb				--
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	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. J. Agric. Food Chem., 28(5): 1037-1038.
112	ASCORBIC-ACID	Bulb				--
12	STIGMASTEROL	Bulb		40.0		--
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. J. Agric. Food Chem., 28(5): 1037-1038.
0	DIPROPENYL-SULFIDE	Bulb				Wealth of India.
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. Fecs. Int. Conf. Chem. Biotechol. Biol. Act. Nat. Prod., (Proc.) 3rd: 166-170.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
0	SELENO-METHYL-SELENOMETHIONINE	Bulb				--
0	GRAMISTEROL	Bulb				Itoh, T., Tamura, T., Mitsunashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. Phytochemistry, 16: 140-141.
0	1-O-P-COUMAROYL-BETA-D-GLUCOSE	Leaf				--
2	PROPIONALDEHYDE	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	DIPROPYL-TRISULFIDE	Bulb				--
8	STEARIC-ACID	Seed		6300.0	-0.4287014331879593	Wealth of India.
3	DI-N-PROPYL-DISULFIDE	Bulb				Wilkens, W. F. 1962. The Isolation and Identification of the Lachrymogenic Compound of Onion. Diss. Abstr. Int. B, 22: 3978.
20	CHOLINE	Bulb		830.0		Dakshinamurti, K. 1955. Choline Content of South Indian Foods. Curr. Sci., 24: 194-195.
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	9,12,13-TRIHYDROXY-OCTADEC-10-ENOIC-ACID	Bulb				--
0	S-(BETA-CARBOXYBETA-METHYL-ETHER)-CYSTEINE	Bulb				--
0	GAMMA-L-GLUTAMYL-S-(1-PROPENYL)L-CYSTEINE-SULFOXIDE	Bulb				--

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-TRANS-PROPENYL-TRISULFIDE	Bulb				Wealth of India.
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.
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.
2	ALLYLMETHYLSULFIDE	Bulb				Wealth of India.
0	24-METHYLENE-CYCLOARTENOL	Bulb				--
0	GAMMA-L-GLUTAMYL-L-ARGININE	Bulb				Matikkala, E. J., Virtanen, A. I. 1970. Isolation of gamma-l-glutamy-l-arginine and gamma-l-glutamyl-s-(2-carboxy-n-propyl)-l-cysteine from Allium cepa (Onion). Suomen Kemistilehti, 43(11): 435-438.
0	4-HYDROXY-BENZOIC-ACID	Bulb				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
0	METHYL-PROPENYL-TRISULFIDE	Plant				--
12	STIGMASTEROL	Seed Oil				Grujic-Injac, B., Basarevic-Dinic, L., Lajsic, S., Stefanovic, D. 1985. Chemical Analysis of Seed Oil of the Onion (Allium cepa). Hrana Ishrana, 25: 167-169 (Inst Ishr Vet Fak Belgrade, Yugoslavia)
13	PALMITIC-ACID	Seed Oil		73000.0	-0.723771059427567	--

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. Fecs. Int. Conf. Chem. Biotechol. Biol. Act. Nat. Prod., (Proc.) 3rd: 166-170.
5	24-METHYLENE-CYCLOARTANOL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. Phytochemistry, 16: 140-141.
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.
0	DIPROPENYL-DISULPHIDE	Bulb				Wealth of India.
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.
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)
4	CALCIUM-OXALATE	Bulb				Walter-Levy, L., Strauss, R. 1954. Inorganic Deposits in Plants. C. R. Acad. Sci., 239: 897-.
0	TULIPOSIDE-B	Root				Slob, A., Jekel, B., De Jong, B., Schlatmann, E. 1975. On the Occurrence of Tuliposides in the Liliiflorae. Phytochemistry, 14: 1997-2005.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALLIOSPIROSIDE-B	Fruit		500.0		Kravets, S.D., Vollner, 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	SELENO-METHYL-SELENOCYSTEINE	Bulb				--
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.
0	1-O-FERULOYL-BETA-D-GLUCOSE	Leaf				--
0	PROPIONAL	Bulb				Wilkens, W. F. 1962. The Isolation and Identification of the Lachrymogenic Compound of Onion. Diss. Abstr. Int. B, 22: 3978.
0	DIPROPYL-DISULPHIDE	Bulb				--
0	CYCLOARTANOL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. Phytochemistry, 16: 140-141.
1	CHOLESTEROL	Bulb				--
43	PROTOCATECHUIC-ACID	Leaf				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
53	BETA-CAROTENE	Flower		28.0	-0.18921282459251038	--
0	THIOPROPIONAL-S-OXIDE	Bulb				--
0	6(G)-BETA-FRUCTOSYL-SUCROSE	Bulb				Bacon, J. S. D. 1959. Trisaccharide Fraction of Some Monocotyledons. Biochem. J., 73: 507-514.
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.
0	GAMMA-L-GLUTAMYL-S(2-CARBOXY-N-PROPYL)L-CYSTEINE	Bulb				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
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.
0	METHYL-TRANS-PROPENYL-DISULFIDE	Bulb				Wealth of India.
102	CAFFEIC-ACID	Root				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
2	ALLYL-METHYL-DISULFIDE	Bulb				Wealth of India.
0	KAEMPFEROL-4'-O-BETA-D-GLUCOSIDE	Bulb				--
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 (<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.
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.
2	COBALT	Seed		2.5	-0.0975154003240051	--
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.
0	METHYL-CIS-PROPENYL-TRISULFIDE	Bulb				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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. <i>J. Agric. Food Chem.</i> , 28(5): 1037-1038.
8	STEARIC-ACID	Seed Oil		35000.0	-0.6541098145281985	--
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. <i>Food Chem.</i> , 8(3): 169-177. (Coll. Agric. Alexandria Univ. Ale.)
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.
0	P-HYDROXYBANZOIC-ACID	Bulb		107.0		--
0	DIMETHYL-FURAN	Essential Oil				Wealth of India.
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.
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)
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.
0	ALLIOSPIROSIDE-A	Pericarp		4600.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	SELENO-METHIONINE	Bulb				--
0	1-O-CAFFEYOYL-BETA-D-GLUCOSE	Leaf				--
0	PROPANE-1-THIOL	Bulb				Wilkens, W. F. 1962. The Isolation and Identification of the Lachrymogenic Compound of Onion. Diss. Abstr. Int. B, 22: 3978.
3	DIPHENYLAMINE	Bulb		23000.0		--
2	QUERCETIN-3,4'-DIGLUCOSIDE	Bulb				--
23	CITRIC-ACID	Leaf				Soldatenkov, S. V., Mazurova, T. A., Rantelev, A. N. 1960. Organic Acids of Onion and Spinach. Trudy Petergof Biol. Inst., Leningrad Gosudarst Univ Im AA Zhdanova, 18: 55-61.
0	CHOLEST-7-EN-3-BETA-OL	Bulb				Itoh, T., Tamura, T., Mitsunashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. Phytochemistry, 16: 140-141.
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	THIOPROPANAL-S-OXIDE	Bulb				--
2	5-OCTYL-CYCLOPENTA-1,3-DIONE	Bulb				--
87	RUTIN	Bulb		14000.0		--
0	GAMMA-L-GLUTAMYL-ISOLEUCINE	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.
3	CYCLOEUCALENOL	Bulb				Itoh, T., Tamura, T., Mitsunashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. Phytochemistry, 16: 140-141.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
102	CAFFEIC-ACID	Leaf				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
0	PROPAN-1-OL	Bulb				--
77	ZINC	Seed		34.0	-0.31604114389068755	--
0	5-METHYL-2-N-HEXYL-2,3-DIHYDROFURAN-3-ONE	Bulb				Wealth of India.
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.
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	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. J. Agric. Food Chem., 28(5): 1037-1038.
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.
0	METHANETHIOL	Bulb				Wealth of India.
0	METHYL-CIS-PROPENYL-DISULFIDE	Plant				--
4	SPIRAEOSIDE	Epidermis				Ito, Y., Ono, M., Masuoka, C., Yahara, S., Nohara, T. 1995. Hyaluronidase Inhibitors of Onion (<i>Allium cepa</i> L.) Skin. Kyushu Tokai Daigaku Nogakubu Kiyu, 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. J. Amer. Oil Chem. Soc., 66(3): 365.
0	ARACHIDIC-ACID	Seed				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2-METHYL-BUTYR-2-ALDEHYDE	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	9,10,13-TRIHYDROXY-OCTADEC-11-ENOIC-ACID	Bulb				--
25	P-COUMARIC-ACID	Bulb				--
0	DIISOPROPYL-TRISULFIDE	Bulb				Wealth of India.
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. J. Agric. Food Chem., 28(5): 1037-1038.
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.
0	ALLIOFUROSIDE-A	Pericarp		220.0		--
0	SELENO-HOME-CYSTINE	Plant				--
0	GLUTAN	Bulb				--
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. J. Agric. Food Chem., 28(5): 1037-1038.
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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	PROPANAL	Bulb				Wealth of India.
1	CHOLESTEROL	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	CEPOSIDE-D	Seed				--
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>). <i>Prostaglandins</i> , 29(5):847-865
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.
2	5-HEXYL-CYCLOPENTA-1,3-DIONE	Bulb				--
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. <i>Suomen Kemistilehti</i> , 34B: 53-54.
0	GAMMA-GLUTAMYL-S-BETA-CARBOXY-BETA-METHYL-ETHYL-CYSTEINYL-GLYCINE	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.
7	CYCLOARTENOL	Bulb				Itoh, T., Tamura, T., Mitsunashi, 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
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.
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. <i>Nippon Eiyo Shokuryo Gakkaishi</i> , 37(4): 343-347.
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-.
5	SAPONINS	Bulb				Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp.
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.
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.
23	CITRIC-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	S-(BETA-CARBOXY-BETA-METHYL-ETHYL)-CYSTEINE	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)-cysteinyglycine. <i>Suomen Kemistilehti</i> , 33B: 83-84.
8	PHLOROGLUCINOL	Bulb		100.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
9	SINAPIC-ACID	Root				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
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	ARABINOSE	Bulb				Sinha, A. 1959. Chemical Examination of Allium cepa. I. Glycosidic and Sugar Fractions. Indian J. Appl. Chem., 22: 89-91.
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.
1	PYRUVIC-ACID	Fruit		1034.0		--
9	OXALIC-ACID	Bulb		10.0		--
4	CIS-N-PROPYLSULPHINOTHIOIC-ACID-S-1-PROPENYLESTER	Bulb				--
0	BETA-TOCOPHEROL	Seed Oil				Grujic-Injac, B., Basarevic-Dinic, L., Lajsic, S., Stefanovic, D. 1985. Chemical Analysis of Seed Oil of the Onion (Allium cepa). Hrana Ishrana, 25: 167-169 (Inst Ishr Vet Fak Belgrade, Yugoslavia)
102	CAFFEIC-ACID	Bulb				--
21	ALLIIN	Bulb				--
5	GLUTAMINE	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.
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.
13	PALMITIC-ACID	Seed		13140.0	-0.4284802139449916	Wealth of India.
0	CEPAENE-4-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	CEPAENES	Bulb				--
0	SELENO-METHYL-SELENOMETHIONINE	Plant				Hamilton, J. W. 1975. Chemical Examination of Seleniferous Onions, <i>Allium cepa</i> . <i>Adv. Front Plant Sci.</i> , 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 <i>Allium</i> Species. I. <i>Herba Hung</i> , 18(2): 71-81.
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. Biotechol. Biol. Act. Nat. Prod.</i> , (Proc.) 3rd: 166-170.
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	GAMMA-L-GLUTAMYL-ARGININE	Bulb				--

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>). <i>Prostaglandins</i> , 29(5):847-865
3	CYCLOALLIIN	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. <i>Khim Farm ZH</i> , 29(8): 34-35.
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 Eiyō Shokuryō Gakkaishi</i> , 37(4): 343-347.
3	XYLOSE	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	MYROSINASE	Bulb				--
5	ZEAXANTHIN	Bulb				Granado, F., Olmedilla, B., Blanco, I., Rojas-Hidalgo, E. 1992. Carotenoid Composition in Raw and Cooked Spanish Vegetables. <i>J. Agr. Food Chem.</i> , 40(11): 2135-2140.
75	KAEMPFEROL	Bulb		2.0		--
61	FERULIC-ACID	Bulb		0.5	-1.0	--
4	TRANS-TRANS-5-ETHYL-4,6,7-TRITHIA-2,8-DECADIENE-4-S-OXIDE	Bulb				--
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. <i>Pharmazie</i> , 47(6): 455-456.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CIS-PROPANETHIOL-S-OXIDE	Bulb				--
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.
1	ISORHAMNETIN-3-GLUCOSIDE	Bulb				--
0	METHIONINE-SULFONE	Bulb				Renis, H. E., Henze, R. E. 1957. Studies on Sulfur Compounds from Onion. Diss. Abstr. Int. B, 17: 1456-1457.
9	SINAPIC-ACID	Leaf				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
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.
9	SINAPIC-ACID	Bulb				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
0	2,5-DIMETHYLTHIOPHENE	Bulb				--
12	PYROCATECHOL	Bulb				Hermann, K. 1958. Flavonols and Phenols of the Onion (<i>Allium cepa</i>). Arch. Pharm. (Weinheim), 291: 238-247.
4	CIS-METHYLSULPHINOTHIOIC-ACID-S-1-PROPENYLESTER	Bulb				--
0	LOPHENOL	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	2,5-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.
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.
67	ALLICIN	Bulb				--
0	SAPONIN	Bulb				--
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>
1	1-(METHYLSULFINYL)-PROPYL-METHYL-DISULFIDE	Bulb				--
2	DIMETHYL-DISULFIDE	Bulb				--
18	OLEIC-ACID	Seed		46800.0	-0.5943767329474172	Wealth of India.
0	CEPAENE-4-A	Bulb				Bayer, T., Wagner, H., Wray, V., Dorsch, W. 1988. Inhibitors of Cyclo-Oxygenase and Lipoxygenase in Onions. <i>Lancet</i> , 8616: 906.
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. <i>J. Biol. Chem.</i> , 100: 379-383.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	SELENO-METHYL-SELENOCYSTEINE	Plant				Hamilton, J. W. 1975. Chemical Examination of Seleniferous Onions, <i>Allium cepa</i> . <i>Adv. Front Plant Sci.</i> , 30: 189-.
6	TARTARIC-ACID	Bulb				--
0	4-ALPHA-METHYL-ZYMOSTENOL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. <i>Phytochemistry</i> , 16: 140-141.
0	GAMMA-GLUTAMYL-S-METHYL-CYSTEINE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	SELENO-METHIONINE	Plant				Hamilton, J. W. 1975. Chemical Examination of Seleniferous Onions, <i>Allium cepa</i> . <i>Adv. Front Plant Sci.</i> , 30: 189-.
0	CYANIDIN-MONOGLYCOSIDE	Bulb				Fuleki, T. 1969. The Anthocyanins of Strawberry, Rhubarb, Radish, and Onion. <i>J. Food Sci.</i> , 34(4): 365-369.
0	ALLIUM-CEPA-POLYSACCHARIDE	Bulb				Schnabl, H. 1977. Isolation and Identification of Soluble Polysaccharides in Epidermal Tissue of <i>Allium cepa</i> . <i>Planta</i> , 135: 307-.
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.
10	XYLITOL	Bulb				Counsell, J. N., Robertson, D. J. 1976. Xylitol-A Sweetener Which is Kind to the Teeth. <i>Food Process Ind.</i> , 45(54): 24-26.
0	GAMMA-L-GLUTAMYL-L-VALINE	Bulb				Virtanen, A. I., Matikkala, B. J. 1961. New gamma-l-glutamyl Peptides in Onion (<i>Allium cepa</i>). III. <i>Suomen Kemistilehti</i> , 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. <i>Herba Hung</i> , 18(2): 71-81.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	TRIDECAN-2-ONE	Bulb				Wealth of India.
4	DIPROPYL-DISULFIDE	Bulb				--
0	CIS-3,5-DIETHYL-1,2,4-TRITHIOLANE	Leaf				Chemical Constituents of Oriental Herbs (3 diff. books)
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	PEROXIDASE	Bulb				--
0	ISOPROPYL-PROPYL-TRISULFIDE	Bulb				Wealth of India.
0	METHIONINE-METHYLSULFONIUM	Plant				--
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.
0	WATER	Leaf		922000.0	0.5705515493442906	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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	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 Eiyo Shokuryo Gakkaishi, 37(4): 343-347.
0	CEPANONE	Bulb				Wealth of India.
0	SODIUM-PROP-TRANS-1-ENYL-THIOSULFATE	Bulb				Yamato, O., Yoshihara, T., Ichihara, A., Maede, Y. 1994. Novel Heinz Body Hemolysis Factors in Onion (Allium cepa). Biosci. Biotech. Biochem., 58(1): 221-222.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	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	GLUCOFRUCTAN	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	1(F)-BETA-FRUCTOSYL-SUCROSE	Bulb				Bacon, J. S. D. 1959. Trisaccharide Fraction of Some Monocotyledons. Biochem. J., 73: 507-514.
0	DIHYDROALLIIN	Bulb				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	NORCEPANONE	Bulb				Wealth of India.
0	CEPAENE-3	Bulb				Bayer, T., Wagner, H., Wray, V., Dorsch, W. 1988. Inhibitors of Cyclo-Oxygenase and Lipoxygenase in Onions. Lancet, 8616: 906.
1	PYRUVIC-ACID	Fruit Juice		1034.0		Morgan, E. J. 1946. Pyruvic Acid in the Juice of Onion (<i>Allium cepa</i>). Nature (London), 157: 512.
2	ASPARAGINE	Bulb				--
0	31-NORLANOSTENOL	Bulb				Itoh, T., Tamura, T., Mitsuhashi, T., Matsumoto, T. 1977. Sterols of Liliaceae. Phytochemistry, 16: 140-141.
0	RHAMNOSE	Bulb				Sinha, A. 1959. Chemical Examination of <i>Allium cepa</i> . I. Glycosidic and Sugar Fractions. Indian J. Appl. Chem., 22: 89-91.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	GAMMA-GLUTAMYL-PHENYLALANINE-ETHYL-ESTER	Bulb				--
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.
0	CYANIDIN-DIGLYCOSIDE	Bulb				Fuleki, T. 1969. The Anthocyanins of Strawberry, Rhubarb, Radish, and Onion. J. Food Sci., 34(4): 365-369.
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	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	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. J. Agric. Food Chem., 42(6): 1335-1341.
6	IRON	Seed		235.0	0.3912510395242066	--
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-

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	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	CYANIDIN-3-O-LAMINARIOBIOSIDE	Bulb				Du, C. T., Wang, P. L., Francis, F. J. 1974. Cyanidin-3-Laminariobioside in Spanish Red Onion (<i>Allium cepa</i>). J. Food Science, 39: 1265-.
0	PENTOSAN	Bulb				--
0	ISOPROPYL-PROPYL-DISULFIDE	Bulb				Wealth of India.
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. J. Agric. Food Chem., 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. Biochem. Mol. Biol. Int., 35(3): 627-634.
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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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. Nippon Eiyō Shokuryō Gakkaishi, 37(4): 343-347.
4	TRANS-N-PROPYLSULPHINOTHIOIC-ACID-S-1-PROPENYLESTER	Bulb				--