

WHAT'S IN A FRESH WHOLE CLEAN APPLE?

(FROM "Handbook of Phytochemical Constituents of Generally Regarded as Safe (GRAS) Herbs")

ABSCISIC-ACID FR NAP	ETHYL-DECENOATE	METHIONINE 20-124	PIPECOLINIC-ACID
CIS-2, TRANS-4-ABSCISIC-ACID BK NAP	ETHYL-DODECANOATE	METHYL-ACETATE	POLYGALACTOSYL-DIGLYCERIDE
TRANS-ABSCISIC-ACID FR NAP	ETHYL-HEXANOATE	METHYL-2-XI-ACETOXY-20-BETA-HYDROXY-URSONATE EP(FR)	POLYGALACTURONASE
ACETIC-ACID	ETHYL-ISOBUTYRATE	METHYLAMINE 4.5 EP(FR) NAP	POLYPHENOLASE
ACETIC-ACID-AMYL-ESTER	ETHYL-METHYLBUTYRATE	2-METHYL-BUT-2-EN-1-AL FR NAP	POMOLIC-ACID PL JSG
ACETALDEHYDE	ETHYL-NONANOATE	2-METHYL-BUT-3-EN-1-OL FR NAP	POMONIC-ACID PL JSG
ACETONE	ETHYL-OCTANOATE	D-2-METHYLBUTAN-1-OL	POTASSIUM L,110-12,140 (-17,630) FR AAS USG
N-ALPHA-ACETYL-AGGININE SH NAP	ETHYL-PENTANOATE	2-METHYLBUTAN-2-OL	PROCYANIDINS LF NAP
ADENINE RT NAP	ETHYL-PHENACETATE	METHYL-BUTYRATE	PROLINE 20-435
ALPHA-ALANINE FR	ETHYL-PROPIONATE	METHYL-CAPROATE	PROPANOL
BETA-ALANINE FR	ETHYL-VALERIANATE	2-METHYL-2,3-EPOXY-PENTANE FR NAP	2-PROPANOL
ALANINE 70-435 FR USA	FARNESENE EP(FR) NAP	NAP	N-PROPANOL
ALUMINUM 0.4-129 FR AAS USG	FAT 3,210-34,200 FR FNF PED	24-METHYLENE-CHOLESTEROL PO NAP	I-PROPANOL
ALPHA-AMINOBUTYRIC-ACID	FAT 180,000-230,000 SD	NAP	N-PROPIONIC-ACID
AMMONIA(NH3) 235-1,029 EP (FR)	FERULIC-ACID 4-95 FR CRC(FSN)	METHYL-FORMATE	N-PROPIONIC-ACETATE
AMYGDALIN 6,000-13,800 SD	FIBER 131,000 FR PED	METHYL-GUANIDINE SH NAP	PROPYL-BUTYRATE
AMYL-ACETATE	FIBER 5,200-49,636 FR USA	6-METHYL-HEPTEN-5-EN-2-ONE FR NAP	PROPYL-FORMATE
AMYL-BUTYRATE	FLUORINE <0.1-2.1 FR AAS	NAP	PROPYL-2-METHYLBUTYRATE
AMYL-PROPIONATE	FOLACTIN 0.02-0.2 FR USA	METHYL-HEXANOATE	PROPYL-N-PENTANOATE
ANILINE 1.7 EP(FR) NAP	FORMIC-ACID	N-METHYL-BETA-PHENETHYLAMINE 1.2 FR NAP	PROPYL-PROPIONATE
ANILINE 1.5 FR NAP	FRUCTOSE 50,100-60,800 FR	METHYL-PROPIONATE	PROTEIN 1,870-12,800 FR PED
ARABINOSE	FUMARIC-ACID	METHYL-2-METHYL-BUTYRATE	PROTocatechuic-ACID FR NAP
ARGININE 60-373 FR USA	GALACTANASE	METHYL-1-PENTANOATE	PUFA 1,050-6,535 FR USA
ARSENIC 0.00055-0.43 FR AAS USG	GALACTARIC-ACID	2-METHYLPENTAN-2-OL	PYRROLIDINE 1.5 EP(FR) NAP
ASCORBIC-ACID 20-402 FR USA	D-GALACTURONIC-ACID 13-54	N-METHYL-PHENETHYLAMINE 1.3	PYRIDINE
ASCORBIDASE	GERANIOL	EX(FR) NAP	PYRUVIC-ACID
ASH 2,300-43,000 FR USG	D-GLUCITOL	N-METHYL-PHENETHYLAMINE 1.2	QUERCETIN 58-263 PC PAM
ASPARAGINE 171 FR	GLUCOCEREBROSIDE 34-49	FR NAP	QUERCETIN-ARABINOSIDE
ASPARTIC-ACID 210-2,115 FR USA	D-GLUCONIC-ACID	GAMMA-METHYL-PROLINE	QUERCETIN-3-O-ALPHA-ARABINOFURANOSIDE PL JSG
AVICULARIN FR NAP	GLUCOSE 17,200-18,200 FR	2-METHYL-PROPEN-1-AL FR NAP	QUERCETIN-3-O-XYLOSIDE EP(FR) NAP
BARIUM 0.22-8.6 FR USG	GLUTAMIC-ACID 156-1,244 FR	METHYL-VINYL-KETONE FR NAP	QUERCETIN-3-O-BETA-D-GLUCOSIDE PL JSG
BENZOIC-ACID	GLUTAMINE 20	MEVALONIC-ACID 30-36 FR	QUERCETIN-3-RHAMNOSIDE PL JSG
3,4-BENZOPYRENE FR NAP	GLYCERIC-ACID	MOLYBDENUM 0.077-0.43 FR USG	QUERCETIN-3-RUTINOSIDE
BENZYL-ACETATE	GLYCINE 80-497	MONOGALACTOSYL-DIGLYCERIDE 12-42	QUERCETIN-3-O-XYLOSIDE EP(FR) NAP
BENZYL-AMINE 0.6 EP(FR) NPA	GLYCOLIC-ACID	I-MONO-LINOLEIN SD NAP	QUERCETIN FR NAP
BENZYLAMINE 0.3-3.0 FR NAP	GLYOXYLIC-ACID	MUFA 150-935 FR USA	L-QUINIC-ACID
BIOTIN	GUANIDINE SH NAP	MYOINOSITOL 4,500 PO NAP	REYNOUTRIN FR NAP
BORON 1-110 FR AAS BOB USG	GUANIDINOACETIC-ACID SH NAP	MYRISTIC-ACID 20-124 FR	RIBOFLAVIN 1 FR
BROMINE <1 FR AAS	GAMMA-GUANIDINOBUTYRIMIDE SH NAP	NEOCHLOROGENIC-ACID	RUBIDIUM 0.27-10 FR AAS
BUTANOL	GAMMA-GUANIDINOBUTYRIMIDE-ACID SH NAP	NEOXANTHIN EP(FR) NAP	RUTIN TR EP(FR) NAP
N-BUTANOL	GAMMA-GUANIDINOPROPIONIC-ACID SH NAP	NIACIN 1-7 FR	SELENIUM 0.000055-0.00043 FR USG
1-BUTANOL	GUANIDINOSUCCINIC-ACID SH NAP	NICKEL 0.004-0.645 FR AAS USG	SERINE 80-497 FR USA
2-BUTANOL	HEMICELLULOSE	NITROGEN 280-4,000 FR AAS	SFA 580-3,610 FR USA
BUTYL-ACETATE	HEPTACOSANE	NONACOSANE	SHKIMIC-ACID
BUTYL-BUTYRATE	N-HEPTANOIC-ACID	D-L-NONACOSANOL	SILICON 1-70 FR AAS
BUTYL-CAPROATE	HEPTENOIC-ACID	N-NONANOIC-ACID	SILVER 0.011-0.086 FR USG
BUTYL-PROPIONATE	2-HEPTANOL	N-NONANOL-2-NONANOL	SINAPIC-ACID FR NAP
BUTYL-VALERIANATE	N-HEPTANOL	NONENOIC-ACID	SODIUM 0-133 FR USG
I-BUTYL-OCTANOATE	N-HEX-1-EN-3-OL	I-NONYL-ACETATE	SORBITOL LF NAP
I-BUTYL-PROPIOATE	CIS-N-HEX-3-EN-1-OL	OCTACOSANOL	STEARIC-ACID 70-435 FR
N-BUTYL-DECANOATE	TRANS-N-HEX-2-EN-1-OL	OCTA-CIS-3-CIS-5-DIEN-1-OL EO NAP	STRONTIUM 0.165-8.6 FR USG
N-BUTYL-FORMATE	TRANS-N-HEX-3-EN-1-OL	NAP	SUCCINIC-ACID
N-BUTYL-N-HEXANOATE	HEXACOSANOL	OCTA-TRANS-3-CIS-5-DIEN-1-OL EO NAP	SUCROSE 24,000-36,200 FR
N-BUTYL-OCTANOATE	N-HEXANOL	ACETATE EO NAP	SUGAR 60,100-166,000 FR
N-BUTYL-PROPIONATE	7-HEXANOIC-ACID	OCTA-TRANS-3-CIS-5-DIEN-1-OL-ACETATE EO NAP	SULFUR 1.65-23 FR USG
CADMIUM <0.002-0.0258 FR AAS USG	1-HEXANOIC-ACID	OCTA-TRANS-3-CIS-5-DIEN-1-OL-ACETATE EO NAP	TETRADECENYL-ACETATE LF NAP
CAFFEETANNIN	HEXANOL	N-OCTANONE	TETRADECYL-ACETATE LF NAP
CAFFEIC-ACID 85-1,270 FR CRC(FSN)	2-HEXENAL	N-OCTANOL-2-OCTANOL	THIAMIN 1-2 FR PED
CALCIUM 43-570 (-1,376) FR AAS USG	TRANS-2-HEXENOIC-ACID	OCTENOIC-ACID	THREONINE 30-435 FR
CALCIUM-OXALATE	HEXYL-ACETATE	I-OCTYL-ACETATE	TITANIUM 0.055-3 FR USG
CAPROALDEHYDE	HEXYL-BUTYRATE	OLEIC-ACID 140-871 FR	ALPHA-TOCOPHEROL 2-37 FR TOT USA
CAPROIC-ACID-AMYL-ESTER	HEXYL-FORMATE	OXALIC-ACID	TRIACONTANOL
CAPRYLIC-ESTER	N-HEXYL-N-HEXANOATE	OXALOACETIC-ACID	TRIGLYCERIDE 45-50
CARBOHYDRATE 152,250-948,550 FR	N-HEXYL-OCTANOATE	ALPHA-OXOGLUTARIC-ACID	1,3,3-TRIMETHYL-DIOXA-2,7-BICYCLO (2,2,1) HEPTANE FR NAP
BETA-CAROTENE 0-76 FR	N-HEXYL-PROPIOATE	PALMITIC-ACID 480-2,986 FR	TRYPTOPHAN 20-124 FR
CAROTENOIDS 0-126	HISTIDINE 30-187 FR	PALMITOLEIC-ACID 10-62 FR	TYROSINE 40-249 FR
CATALASE	P-HYDROXYBENZOIC-ACID FR NAP	PANTOTHENIC-ACID 1-4 FR USA	URONIC-ACID 7-1,440 FR
D-CATECHIN FR NAP	HYDROXYCINNAMIC-ACID 1,340 FR	PECTASE	URSOLIC-ACID EP(FR) NAP
CHLOROGENIC-ACID FR NAP	4-HYDROXYMETHYLPROLINE	PECTIN 1,400-66,585 FR USA	VALINE 40-560 FR
CHLOROPHYLL 0-1 FR	3-HYDROXY-OCTYL-BETA-D-GLUCOSIDE FR NAP	PECTIN-DEMETHOXYXYLASE	VIT-B6 1-3 FR
CHROMIUM 0.005-0.3 FR AAS USG	19-HYDROXYURSOLIC-ACID PL JSG	N-PENTANOIC-ACID	VIT-B12 0-100 FR
CITRIC-ACID	20-HYDROXYURSOLIC-ACID PL JSG	PENTANOL	WATER 809,000-896,000 FR USG
CITRAMALIC-ACID	19-HYDROXYURSOLIC-ACID PL JSG	1-PENTANOL	XYLOSE
COBALT <0.005-0.043 FR AAS USG	HYPERIN	2-PENTANOL	ZINC 0-35 FR AAS USG
COPPER 0.24-4 FR AAS USG	HYPEROSIDE FR NAP	3-PENTANOL	ZIRCONIUM 0.22-0.86 FR USA
COUMARIC-ACID	IDAEN	N-PENTENOIC-ACID	
P-COUMARIC-ACID 15-460 FR CRC (FSN)	INDOLE-3-ACETIC-ACID PL PAS	N-PENTYL-AMINE 0.3 FR NAP	
N-COUMARYL-QUINIC-ACID	INOSITOL	PENTYL-BUTYRATE	
P-COUMARYL-QUINIC-ACID FR NAP	IODINE	N-PENTYL-DECANOATE	
CREATINE SH NAP	IRON 1.1-123 FR AAS USA USG	N-PENTYL-FORMATE	
CUTIN EP(FR) NAP	ISOAMYL-BUTYRATE	1-PENTYL-FORMATE	
CYANIDIN LF NAP	ISOAMYL-PROPIONATE	PENTYL-HEXANOATE	
CYANIDIN-3-ARABINOSIDE	ISOBUTYL-ACETATE	N-PENTYL-2-METHYLBUTYRATE	
CYANIDIN-7-ARABINOSIDE	ISOBUTYL-BUTYRATE	1-PENTYL-4-PENTANOATE	
CYANIDIN-3,5 DIGLUCOSIDE CY NAP	ISOBUTYL-FORMATE	N-PENTYL-OCTANOATE	
CYANIDIN-3-GALACTOSIDE	ISOCITRIC-ACID	PEROXIDASE	
CYSTINE 30-187	ISOLEUCINE 50-497 FR	2-PHENETHYLACETATE	
I-DECANOIC-ACID	ISOPROPYL-BUTYRATE	PHENOLICS 1,100-3,400	
N-DECANOL	ISOUERCITRIN FR NAP	PHENYLALANINE 50-311 FR	
DECENOIC-ACID	JASMONIC-ACID FR NAP	PHLORETAMIDE FR NAP	
1-DECYL-ACETATE	KILOCALORIES 3,419 FR PED	PHLORETIN LF JAD	
DEHYDROASCORBIC-ACID	LACTIC-ACID	PHLORETIN-4'-O BETA-D-GLUCOPYRANOSIDE 6,486 FR NAP	
DIASE	LAURIC-ACID 10-63 FR	PHLORETIN-XYLOGLUCOSIDE FR NAP	
DIETHYLAMINE 3 FR NAP	LEAD 0.002-64 FR AAS USG	NAP	
DIGALACTOSYL-DIGLYCERIDE 49-107 FR	LECITHIN	PHLORIZIN GLYCOSURIC	
3-BETA-19-ALPHA-DIHYDROXY-2-OXOURS-	LEUCINE 120-746 FR	PHOSPHATIDYLIC-ACID 3-6 FR	
12-EN-28-OIC-ACID 1,000 WD NAP	LINOLENIC-ACID 870-5,411 FR	PHOSPHATIDYL-CHOLINE 189-214 FR	
DIHYDROXYTRICARBALLYLIC-ACID 1 FR	ALPHA-LINOLENIC-ACID 180-1,120 FR	PHOSPHATIDYL-ETHANOLAMINE 101-124 FR	
DIPHOSPHATIDYL-GLYCEROL 4-6 FR	LITHIUM 0.044-0.172 FR USG	PHOSPHATIDYL-GLYCEROL 8-27 FR	
EO 25-35	LUTEIN 0.4-5 FR JAF37:657	PHOSPHATIDYL-INOSITOL 53-59 FR	
L-EPICATECHIN FR NAP	LUTEOXANTHIN FR NAP	PHOSPHATIDYL-SERINE 4 FR	
5,6-EPOXY-10'-APO-5,6-DIHYDRO-BETA-CAROTENE-3,10'-DIOL 20,000	LYSINE 20-746 FR	PHOSPHORUS 68-925 (-1,548) FR AAS	
EP(FR) NAP	MAGNESIUM 48-478 (-860) FR AAS USA USG	PED USG	
ESTRAGOLE TR EO	L-MALIC-ACID	PHYTOSTEROLS 120-745 FR USA	
ESTRONE 0.10-0.13 SD NAP	MALVIDIN-MONOGLYCOSIDE		
ETHANOL	MANGANESE 0-29 FR AAS USG		
ETHYL-ACETATE	MANNONE		
ETHYLAMINE 3 FR NAP	MERCURY 0.00011-0.02 FR AAS USG		
ETHYL-BUTYRATE	METHANOL		
ETHYL-CAPROATE			
ETHYL-CROTONATE			

Many entries derived from Hulme AAS=ACTA AGRIC SCAND SUPPL 22:1980 H20=86%; ZMB =7.14 X APP