WATER detection (d) and recognition (r) flavour or taste threshold values, if not indicated otherwise, in mg/kg

A

abhexone⇒5-ETHYL-3-HYDROXY-4-METHYL-2(5*H*)-FURANONE

ABSINTHIN *[1362-42-1]*

Korte (1957)	r	0.1
Schneider & Mielke (1979)	r	0.08

H-γ-Abu-NH-cyclohexyl⇒4-AMINOBUTANOIC ACID CYCLOHEXYLAMIDE
γ-Abu-OMe.HCl⇒METHYL 4-AMINOBUTANOATE HYDROCHLORIDE
H-γ-Abu-NH-phenyl⇒4-AMINOBUTANOIC ACID PHENYLAMIDE
H-ε-Aca-NH-cyclohexyl⇒6-AMINOHEXANOIC ACID CYCLOHEXYLAMIDE
H-ε-Aca-NH-phenyl⇒6-AMINOHEXANOIC ACID PHENYLAMIDE
acesulfam K⇒6-METHYL-1,2,3-OXATHIAZIN-4(3*H*)-ONE 2,2-DIOXIDE, POTASSIUM SALT
acetaldehyde⇒ETHANAL
acetaldehyde diethyl acetal⇒1,1-DIETHYOETHANE
acetalylphenylthiourea⇒1-(2,2-DIETHOXYETHYL)-3-PHENYL-2-THIOUREA
acetamide⇒ETHANAMIDE

ACETIC ACID (ethanoic acid) *[64-19-7]*

Richet (1883)		90
Bailey (1887)	r	940
Corin (1888)	d	350
Kahlenberg (1898)		600
Becker & Herzog (1907)	d	6
Crozier (1916)		300
Gibson & Hartman (1919)	d	96.8
Liljestrand (1922)		60
Paul (1922,1923)		132
Schellworth (1922)	r	94
Rosenbaum (1925)		150
Berlatzky & Guevara (1928)	r	750
Taylor (1928); Taylor *et al.* (1930)	r	168 (sour taste, nose closed)
Hahn (1932, 1934); Hahn & Günther (1932); Petri (1935); Hahn *et al.* (1938, 1940)	r	17.8 - 207 (‘Geschmackslupe’, sour taste)
Cragg (1937)	r	6
Meinhold (1935)	r	48 - 66
Fabian & Blum (1943)	d	50
Fabian & Blum (1943)	r	120
Hara (1955)		3,000 - 30,000
Pangborn (1963)	d	1.2
Rothe (1963a)	d	200 - 300
Patton (1964)		54
Korslund & Eppright (1967)		120 - 600
Siek *et al.* (1969,1971)		22
Jefferson & Erdman (1970)	r	73
Rothe *et al.* (1972)	d	50
Shibamoto *et al.* (1980)		8
Rottmann (1985)	r	102
Schiffman (1993)	d	6.4 - 16.4
González-Viñas *et al.* (1996)	d	201
Warmke *et al.* (1996)	r	54 (pH 5.6)
Sato *et al.* (1997)	r	1,800 - 12,000 (filter paper disk)
Schieberle & Hofmann (1997)		60
Stevens (1997)	d	6.4 - 6.8
Schlichtherle-Cerny & Grosch (1998)	r	120 (pH 5.7)
Mojet *et al.* (2001)	d	14 - 29

WATER detection (d) and recognition (r) flavour or taste threshold values, if not indicated otherwise, in mg/kg

Darriet *et al.* (2002)	d	50
Weiss & Hofmann (2004); Rotzoll *et al.* (2006); Stark *et al.* (2006); Hufnagel & Hofmann (2008b)	r	120 (sour taste)
Kim *et al.* (2009)	d	900 (three-stimulus drop technique)
Kim *et al.* (2009)	r	5,500 (three-stimulus drop technique)

acetoin⇒3-HYDROXY-2-BUTANONE
acetol⇒1-HYDROXYPROPANONE
acetone⇒PROPANONE
acetonic acid⇒2-(HYDROXYMETHYL)PROPANOIC ACID
acetosulfam⇒6-METHYL-1,2,3-OXATHIAZIN-4(3*H*)-ONE 2,2-DIOXIDE, POTASSIUM SALT
acetovanillon⇒1-(4-HYDROXY-3-METHOXYPHENYL)ETHANONE
2-acetoxybenzoic acid⇒2-(ACETYLOXY)BENZOIC ACID

1'-ACETOXYCHAVICOL ACETATE (galangal acetate)
Yang & Eilerman (1999) r < 5

(*Z*,*Z*)-1-ACETOXY-2,4-DIHYDROXY-12,15-HENEICOSADIENE
Degenhardt & Hofmann (2010) r 0.092 **mM** (bitter taste)

1-ACETOXY-2,4-DIHYDROXY-16-HEPTADECENE
Degenhardt & Hofmann (2010) r 11.2 (bitter taste)

1-ACETOXY-2,4-DIHYDROXY-16-HEPTADECYNE
Degenhardt & Hofmann (2010) r 8.8 (bitter taste)

(*Z*)-3-acetoxyheptadeca-1,9-diene-4,6-diin-8-ol⇒FALCARINDIOL 3-ACETATE

(*Z*,*Z*)-1-ACETOXY-2-HYDROXY-4-OXO-12,15-HENEOCOSADIENE
Degenhardt & Hofmann (2010) r 0.121 **mM** (bitter taste)

(*Z*,*Z*,*Z*)-1-ACETOXY-2-HYDROXY-4-OXO-5,12,15-HENEICOSATRIENE
Degenhardt & Hofmann (2010) r 0.070 **mM** (bitter taste)

1-ACETOXY-2-HYDROXY-4-OXOHEPTADECANE
Degenhardt & Hofmann (2010) r 0.313 **mM** (bitter taste)

1-ACETOXY-2-HYDROXY-4-OXO-16-HEPTADECENE
Degenhardt & Hofmann (2010) r 0.088 **mM** (bitter taste)

1-ACETOXY-2-HYDROXY-4-OXO-12-OCTADECENE
Degenhardt & Hofmann (2010) r 0.070 **mM** (bitter taste)

3-ACETOXY-1,2-PROPANEDIOL (glycerol monoacetate, monacetin) *[106-61-6]*
Jugel (1979) r 1,340 - 1,610 (bitter taste)

(*S*)-(-)-N-ACETYL-2-AMINO-3-(3-INDOLYL)PROPANOATE (N-acetyl-L-tryptophan) *[1218-34-4]*
Wieser & Belitz (1975) r 2,460 - 2,960 (bitter taste)

N-ACETYL-L-2-AMINO-3-METHYLBUTANOIC ACID (Ac-L-Val) *[96-81-1]*
Tamura *et al.* (1990a) r 150 (sour taste)

N-ACETYL-L-2-AMINO-3-METHYLPENTANOIC ACID (Ac-L-Ile) *[3077-46-1]*
Tamura *et al.* (1990a) r 163 (sour taste)

N-ACETYL-L-2-AMINO-4-METHYLPENTANOIC ACID (Ac-L-Leu) *[1188-21-2]*
Asao *et al.* (1987) r 3,080 (bitter taste)

Tamura *et al.* (1990a) r 81 (sour taste)

N-ACETYL-L-2-AMINO-3-PHENYLPROPANOIC ACID (N-acetyl-L-phenylalanine) *[2018-61-3]*
Wieser & Belitz (1975) r 2,070 - 2,490 (bitter taste)
Asao *et al.* (1987) r 1,880 (bitter taste)

2-(N-ACETYLAMINO)-5-AMINOPENTANOIC ACID (H-L-Orn(Ac)-OH)
Seki *et al.* (1990) r 2.54 **mM** (sweet taste)

5-(N-ACETYLAMINO)-2-AMINOPENTANOIC ACID (δ-Ac-L-Orn)
Seki *et al.* (1990) r 1.91 **mM** (sweet taste)

5-ACETYL-2,3-DIHYDRO-1,4-THIAZINE *[164524-93-0]*
Hofmann & Schieberle (1995);
Hofmann *et al.* (1995) 0.000 6

2-ACETYLFURAN (2-furyl methyl ketone) *[1192-62-7]*
Brulé *et al.* (1971) d 80
Shibamoto *et al.* (1980) 1

1-ACETYLIMIDAZOLE *[2466-76-4]*
Jugel (1979) r 880 - 1,320 (bitter taste)

N-acetyl-L-isoleucine methyl ester⇒METHYL L-N-ACETYL-2-AMINO-3-METHYLPENTANOATE
N-acetyl-L-leucine ethyl ester⇒ETHYL L-N-ACETYL-2-AMINO-4-METHYLPENTANOATE
N-acetyl-L-leucine methyl ester⇒METHYL L-N-ACETYL-2-AMINO-4-METHYLPENTANOATE

1-ACETYL-4-METHYLBENZENE (methyl acetophenone) *[122-00-9]*
Masanetz (1997) 0.0156

2-ACETYL-4-METHYLTHIAZOLE *[7533-07-5]*
Schutte (1974) 0.300

2-(ACETYLOXY)BENZOIC ACID (2-acetoxybenzoic acid, *n*-acetylsalicylic acid, aspirin) *[50-78-2]*
Hahn (1932) 523 (‘Geschmackslupe’)
Blakeslee & Salmon (1935) 200
Jugel (1979) r > 9,010 (bitter taste)

1-(acetyloxy)-1,2-dihydroobacunoic acid ε-lactone⇒NOMILIN
N-acetyl-L-phenylalanine⇒N-ACETYL-L-2-AMINO-3-PHENYLPROPANOIC ACID
N-acetyl-D-phenylalanine ethyl ester⇒ETHYL D-N-ACETYL-2-AMINO-3-PHENYLPROPANOATE
N-acetyl-L-phenylalanine ethyl ester⇒ETHYL L-N-ACETYL-2-AMINO-3-PHENYLPROPANOATE
N-acetyl-D-phenylalanine methyl ester⇒METHYL D-N-ACETYL-2-AMINO-3-PHENYLPROPANOATE

ACETYLPYRAZINE *[22047-25-2]*
Lawrence (1984-87) 0.1
Stempfl *et al.* (1985) r 98 - 183 (bitter taste)

2-ACETYLPYRROLE *[1072-83-9]*
Lawrence (1984-87) 100

1-ACETYL-2-(1-PYRROLIDINYL)FURAN
Pabst *et al.* (1985) r 179 - 251

n-acetylsalicylic acid⇒2-(ACETYLOXY)BENZOIC ACID

2-ACETYLTHIAZOLE *[24295-03-2]*
Schutte (1974) 0.010

WATER detection (d) and recognition (r) flavour or taste threshold values, if not indicated otherwise, in mg/kg

2-ACETYL-2-THIAZOLINE *[29926-41-8]*

Schutte (1974)		0.003
Cerny & Grosch (1993)		0.001

2-ACETYLTHIOPHENE *[88-15-3]*

Golovnja & Rothe (1980)	d	0.000 08

1-ACETYL-2-THIOUREA (N-acetylthiourea) *[591-08-2]*

Harris & Kalmus (1949b)		11
Chen (1979)	r	4.7 - 8.3 (bitter taste)

N-acetylthiourea⇒1-ACETYL-2-THIOUREA
N-acetyl-L-tryptophan⇒(*S*)-(-)-N-ACETYL-2-AMINO-3-(3-INDOLYL)PROPANOATE
N-acetyl-L-tryptophan ethyl ester⇒ETHYL (*S*)-(-)-N-ACETYL-2-AMINO-3-(3-INDOLYL)PROPANOATE
N-acetyl-L-tyrosine ethyl ester⇒ETHYL (*S*)-(-)-N-ACETYL-2-AMINO-3-(4-HYDROXYPHENYL)PROPANOATE
Ac-L-Ile⇒N-ACETYL-L-2-AMINO-3-METHYLPENTANOIC ACID
Ac-L-Leu⇒N-ACETYL-L-2-AMINO-4-METHYLPENTANOIC ACID
(*E*)-aconitic acid⇒(*E*)-PROPENE-1,2,3-TRICARBOXYLIX ACID
(*Z*)-aconitic acid⇒ (*Z*)-PROPENE-1,2,3-TRICARBOXYLIX ACID

ACONITINE ((1α,6α,14α,15α,16β)-2,3-didehydro-20-ethyl-1,6,16-trimethoxy-4-(methoxymethyl)aconitane-8,13,14,15-tetrol 8-acetate 14-benzoate) *[302-27-2]*

Gley & Richet (1885a)		50

ε-Acp-OMe.HCl⇒METHYL 6-AMINOHEXANOATE HYDROCHLORIDE
δ-Ac-L-Orn⇒5-(N-ACETYLAMINO)-2-AMINOPENTANOIC ACID
active amyl alcohol⇒2-METHYL-1-BUTANOL

ACUTISSIMIN A *[108906-66-7]*

Stark *et al.* (2010)	r	1.1 (astringency)
Stark *et al.* (2010)	r	> 120 (bitterness)

ACUTISSIMIN B

Stark *et al.* (2010)	r	1.9 (astringency)
Stark *et al.* (2010)	r	> 120 (bitterness)

Ac-L-Val⇒N-ACETYL-L-2-AMINO-3-METHYLBUTANOIC ACID

N-(1-ADAMANTYL)UREA *[13072-69-0]*

Jugel (1979)	r	> 1,940 (bitter taste)

adenine⇒6-AMINO-1*H*-PURINE

ADENOSINE *[58-61-7]*

Jugel (1979)	r	800 - 1,600 (bitter taste)
Dunkel & Hofmann (2009); Sonntag *et al.* (2010)	r	20,580 (bitter taste)

ADENOSINE 3',5'-CYCLIC MONOPHOSPHATE (3',5'-cAMP) *[60-92-4]*

Dunkel & Hofmann (2009)	r	32,900 (umami taste)

ADENOSINE 5'-MONOPHOSPHATE SODIUM SALT (sodium adenosine 5'-monophosphate) *[13474-03-8]*

Gutzeit-Walz & Solms (1971)	d	100
Warendorf *et al.* (1992); Rotzoll *et al.* (2006); Dunkel & Hofmann (2009)	r	740 - 2,220/1,480 (umami taste)

adipic acid⇒HEXANEDIOIC ACID

ADONITOL (ribitol) *[488-81-3]*
Haefeli (1983) r 13,690
Hufnagel & Hofmann (2008b) r 6,890 (sweet taste)

H-β-Ala-NH-cyclohexyl⇒3-AMINOPROPANOIC ACID CYCLOHEXYLAMIDE
β-Ala-OMe.HCl⇒METHYL 3-AMINOPROPANOATE HYDROCHLORIDE
DL-alanine⇒DL-2-AMINOPROPANOIC ACID
D-alanine⇒(*R*)-(-)-2-AMINOPROPANOIC ACID
L-alanine⇒(*S*)-(+)-2-AMINOPROPANOIC ACID
β-alanine⇒3-AMINOPROPANOIC ACID
L-alanine *tert*-butyl ester HCl⇒*tert*-BUTYL L-2-AMINOPROPANOATE HYDROCHLORIDE
β-alanine methyl ester hydrochloride⇒METHYL 3-AMINOPROPANOATE HYDROCHLORIDE
H-β-Ala-NH-phenyl⇒3-AMINOPROPANOIC ACID PHENYLAMIDE

3-O-(L-ALANYL)-D-GLUCOSE
Tamura *et al.* (1985b) r 2.3 **mM** (sweet taste)

N-β-alanyl-L-histidine⇒L-CARNOSINE
aldehyde C14⇒TETRADECANAL
alliin⇒(*S*)-3-(2-PROPENYLSULPHINYL)-L-ALANINE

4-ALLYL-2,6-DIMETHOXYPHENOL *[6627-88-9]*
Chatonnet *et al.* (1992a) d 1.2

D-C-allylglycine⇒(*R*)-(+)-2-AMINO-4-PENTONOIC ACID

1-ALLYL-4-METHOXYBENZENE (estragole, methylchavicol) *[140-67-0]*
Murgoci (1996) 0.0075

5-ALLYL-1-METHOXY-2,3-METHYLENEDIOXYBENZENE (myristicin) *[607-91-0]*
Blank *et al.* (1992) 0.03

4-ALLYL-2-METHOXYPHENOL (eugenol) *[97-53-0]*
Stevens (1970) d 0.090
Boidron *et al.* (1988); Chatonnet *et al.* (1992a) d 0.007
Guth (1996) 0.001

1-ALLYLOXY-2-AMINO-4-NITROBENZENE
Verkade *et al.* (1946) r < 5 (sweet taste)

1-ALLYL-2-THIOUREA (thiosinamine) *[109-57-9]*
Barnicot *et al.* (1951) d 23.4 - 46.9

1-ALLYLUREA *[557-11-9]*
Fischer (1967) 67 - 300

ALOIN *[8015-61-0]*
Bailey & Franklin (1885) r 4.8 (bitter taste)
Scholl & Munch (1937) r 7.5 (bitter taste)

ALUMINUM CHLORATE *[15477-33-5]*
Grönberg (1919) 1,890 (astringent taste)

ALUMINUM CHLORIDE *[7446-70-0, 7784-13-6]*
Renqvist (1919) d 60
Böröcz-Szabó (1985) 50 **mg Al/kg**

WATER detection (d) and recognition (r) flavour or taste threshold values, if not indicated otherwise, in mg/kg

ALUMINUM SULPHATE *[10043-01-3, 7784-31-8]*

Stooff (1919)	r	25
Böröcz-Szabó (1985)		20 **mg Al/kg**
Young *et al.* (1996)		7.4

AMAROGENTIN *[21018-84-8]*

Korte (1955); Korte & Schicke (1956)	r	0.017
Inouye *et al.* (1970); Inouye & Nakamura (1971)	r	< 1

AMERICANIN A

Schwarz & Hofmann (2009)	r	0.004 **mM** (velvety mouth-coating sensation)

AMAROSWERIN *[21233-18-1]*

Inouye *et al.* (1970); Inouye & Nakamura (1971)	r	< 1

AMINOACETIC ACID (glycine, glycocoll) *[56-40-6]*

Hahn (1934); Petri (1935); Hahn *et al.* (1938); Hahn & Ulbrich (1948)	r	3.9 - 35,670 (‘Geschmackslupe’, sweet taste)
Yoshida *et al.* (1966)	d	1,300
Nofre *et al.* (1974)	d	2,160
Wieser *et al.* (1977); Weiss & Hofmann (2004); Rotzoll *et al.* (2005, 2006); Scharbert & Hofmann (2005); Stark *et al.* (2006); Hufnagel & Hofmann (2008b); Dunkel & Hofmann (2009)	r	1,880 - 2,630 (sweet taste)
Schiffman *et al.* (1979); Schiffman (1993)	d	2,320 - 4,630
Haefeli & Glaser (1990)	r	1,160
Tamura *et al.* (1990b)	r	2,850 (sweet taste)

2-AMINOACETIC ACID CYCLOHEXYLAMIDE (H-gly-NH-cyclohexyl)

Ishibashi *et al.* (1988c); Tamura *et al.* (1989c)	r	8.4 **mM** (bitter taste)

2-AMINOACETIC ACID PHENYLAMIDE (H-gly-NH-phenyl)

Ishibashi *et al.* (1988c); Tamura *et al.* (1989c)	r	8.4 **mM** (bitter taste)

aminobenzene⇒ANILINE

2-AMINOBENZOIC ACID (anthranilic acid) *[118-92-3]*

Belitz *et al.* (1979,1988)	r	411 - 686 (sweet taste)

3-AMINOBENZOIC ACID *[99-05-8]*

Belitz *et al.* (1979)	r	1,100 - 1,370 (sweet taste)

4-AMINOBENZOIC ACID *[150-13-0]*

Belitz *et al.* (1979)	r	> 13,700 (sweet taste)
Belitz *et al.* (1979); Jugel (1979)	r	4,110 - 5,480 (bitter taste)

m-aminobenzonitrile⇒1-AMINO-3-CYANOBENZENE

AMINO-N-BENZOYLACETIC ACID (hippuric acid, N-benzoylglycine) *[495-69-2]*

Wieser & Belitz (1975)	r	717 - 1,075 (bitter taste)
Shinoda & Okai (1985); Ishibashi *et al.* (1988c); Tamura *et al.* (1989c)	r	540 (sour taste)

L-6-AMINO-2-(N-BENZOYLAMINO)HEXANOIC ACID (Bz-L-Lys-OH) *[366-74-5]*