

**WATER**

detection (d) and recognition (r) odour threshold values in mg/kg

**A**

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

**ACENAPHTHENE [83-32-9]**

Lillard &amp; Powers (1975) d 0.08

acetal⇒1,1-DIETHOXYETHANE

acetaldehyde⇒ETHANAL

acetaldehyde diethyl acetal ⇒1,1-DIETHOXYETHANE

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

|   |   |             |
|---|---|-------------|
| Ohrwall (1891)  | r | 60          |
| Baker (1963)  |   | 24.3        |
| Amoore <i>et al.</i> (1968); Amoore (1969)                    | d | 30.7        |
| Zoeteman <i>et al.</i> (1971)                                 |   | 200         |
| Manning & Robinson (1973)                                     |   | 100         |
| Kikuchi <i>et al.</i> (1976)                                  |   | 34.2        |
| Aharoni <i>et al.</i> (1980)                                  |   | 200         |
| Schnabel <i>et al.</i> (1988)                                 | d | 210 - 522   |
| Larsen & Poll (1990)  | d | 100 - 1,000 |
| Larsen & Poll (1992)  | d | 10 - 100    |
| Grosch <i>et al.</i> (1993)                                   |   | 60          |
| Guth (1996)   |   | 22          |
| Buttery & Ling (1998)   | d | 22          |
| Tamura <i>et al.</i> (2001); Boonbumrung <i>et al.</i> (2001) | d | 25.59 - 26  |
| Darriet <i>et al.</i> (2002)                                  | d | 50          |
| Karagül-Yüceer <i>et al.</i> (2003)                           | d | 22          |
| Czerny <i>et al.</i> (2007c); Czerny <i>et al.</i> (2008)     | r | 180         |
| Czerny <i>et al.</i> (2008)                                   | d | 99          |

acetoin⇒3-HYDROXY-2-BUTANONE

acetol ⇒HYDROXYPROPANONE

acetone⇒PROPANONE

**1-ACETONYLPYRROLE (1-(1-pyrrolyl)-2-propanone) [4805-24-7]**Tressl *et al.* (1985b) d 0.1**ACETOPHENONE [98-86-2]**

|  |   |       |
|--|---|-------|
| Rosen <i>et al.</i> (1963)                           |   | 0.065 |
| Baker (1963)   |   | 0.17  |
| Pyysalo <i>et al.</i> (1977)                         | d | 0.052 |
| Aoki & Koizumi (1986)                                |   | 0.036 |
| Buttery <i>et al.</i> (1988a); Buttery & Ling (1995) | d | 0.065 |
| Schirack <i>et al.</i> (2006)                        | d | 0.245 |
| Pino & Mesa (2006)                                   | d | 0.065 |

acetovanillone⇒1-(4-HYDROXY-3-METHOXYPHENYL)ETHANONE

**4-ACETYL-6-tert-BUTYL-1,1-DIMETHYLINDANE (celestolide) [13171-00-1]**Amoore *et al.* (1977) d 0.0050

2-acetyl-3,4-dihydro-2H-azole⇒2-ACETYL-1-PYRROLINE

**5-ACETYL-2,3-DIHYDRO-1,4-THIAZINE [164524-93-0]**

|  |   |                  |
|--|---|------------------|
| Hofmann & Schieberle (1995); Schieberle & Hofmann (1996a, 1996b) |   | 0.00125 - 0.0017 |
| Buttery (1999)   | d | 0.000 6          |

**2-ACETYLFURAN [1192-62-7]**Buttery *et al.* (1990a,1994a); Buttery (1993);

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|  |   |               |
|--|---|---------------|
| Buttery & Ling (1995,1998)   | d | 10            |
| Giri <i>et al.</i> (2010)  | d | 15.02520      |
| 7-ACETYL-1,1,3,4,4,6-HEXAMETHYL-1,2,3,4-TETRAHYDRONAPHTHALENE (fixolide, tonalide) [1506-02-1]   |   |               |
| Amoore <i>et al.</i> (1977)  | d | 0.001 5       |
| (-)-(2R,4S)-2-acetyl- <i>p</i> -menth-6-ene⇒(-)-1-[(1R,5S)-5-ISOPROPYL-2-METHYLCYCLOHEX-EN-1-YL]ETHANONE<br>(+)-(2S,4R)-2-acetyl- <i>p</i> -menth-6-ene⇒(+)-1-[(1S,5R)-5-ISOPROPYL-2-METHYLCYCLOHEX-EN-1-YL]ETHANONE |   |               |
| 1-ACETYL-4-METHYLBENZENE (methyl acetophenone) [122-00-9]  |   |               |
| Appell (1969)  |   | 0.16          |
| Buttery <i>et al.</i> (1976b)  | d | 0.019         |
| Masanetz & Grosch (1998a, 1998b)   |   | 0.024         |
| Boonbumrung <i>et al.</i> (2001)   | d | 0.021         |
| 2-ACETYL-3-METHYLPYRAZINE [23787-80-6]   |   |               |
| Mihara & Masuda (1988)   | d | 0.02          |
| 2-ACETYL-5-METHYLPYRAZINE [22047-27-4]   |   |               |
| Mihara & Masuda (1988)   | d | 0.4           |
| Buttery <i>et al.</i> (1999); Buttery (1999)   | d | 3             |
| 2-ACETYL-6-METHYLPYRAZINE [22047-26-3]   |   |               |
| Mihara & Masuda (1988)   | d | 0.3           |
| Buttery (1999)   | d | 3             |
| ACETILPYRAZINE [22047-25-2]  |   |               |
| Teranishi <i>et al.</i> (1975); Buttery (1981,1999)  | d | 0.06 - 0.062  |
| 2-ACETILPYRIDINE [1122-62-9]   |   |               |
| Teranishi <i>et al.</i> (1975); Buttery (1981,1999);<br>Buttery & Ling (1998)  | d | 0.019         |
| 2-ACETILPYRROLE [1072-83-9]  |   |               |
| Teranishi <i>et al.</i> (1987); Buttery <i>et al.</i> (1988a,1994a,<br>1999); Buttery & Ling (1998); Buttery (1999)  | d | 170           |
| Giri <i>et al.</i> (2010)  | d | 58.58525      |
| 2-ACETYL-1-PYRROLINE (2-acetyl-3,4-dihydro-2 <i>H</i> -azole) [85213-22-5]   |   |               |
| Buttery <i>et al.</i> (1982a,1983,1988a,1994a,1997,1999);<br>Buttery (1993,1999); Buttery & Ling (1995,1998)   | d | 0.000 1       |
| Czerny <i>et al.</i> (2007)  |   | 0.000 1       |
| Czerny <i>et al.</i> (2008)  | d | 0.000 053     |
| Czerny <i>et al.</i> (2008)  | r | 0.000 12      |
| 2-ACETYL-1,4,5,6-TETRAHYDROPYRIDINE [25343-57-1]   |   |               |
| Teranishi <i>et al.</i> (1975); Buttery (1981,1999);<br>Buttery & Ling (1995,1998);<br>Buttery <i>et al.</i> (1997,1999)   | d | 0.001 - 0.002 |
| 2-ACETYL-3,4,5,6-TETRAHYDROPYRIDINE [27300-27-2]   |   |               |
| Buttery & Ling (1995,1998); Buttery <i>et al.</i> (1997,<br>1999); Buttery (1999)  | d | 0.001 – 0.002 |
| 6-ACETYL-1,2,3,4/2,3,4,5-TETRAHYDROPYRIDINE  |   |               |
| Belitz & Grosch (1992a)  |   | 0.0016        |
| 2-ACETYLTHIAZOLE [24295-03-2]  |   |               |
| Teranishi & Buttery (1985);<br>Buttery <i>et al.</i> (1994a,1999) ; Buttery (1999)   | d | 0.01          |

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|   |   |                |
|---|---|----------------|
| Marchand <i>et al.</i> (2000)   | d | 0.003          |
| <b>4-ACETYLTHIAZOLE</b>   |   |                |
| Teranishi <i>et al.</i> (1975)  | d | 0.17           |
| <b>2-ACETYL-2-THIAZOLINE [29926-41-8]</b>   |   |                |
| Teranishi <i>et al.</i> (1975); Buttery (1981,1999);<br>Buttery <i>et al.</i> (1994a)                               | d | 0.001 - 0.0013 |
| Cerny & Grosch (1993); Grosch <i>et al.</i> (1993);<br>Guth & Grosch (1994); Schieberle &<br>Hofmann (1996a, 1996b) |   | 0.001          |
| Karagül-Yüceer <i>et al.</i> (2004)   | d | 0.001          |
| Limpawattana (2007)   | d | 0.000 12       |
| <b>3-(ACETYLTHIO)-2-BUTYLOCTANAL</b>  |   |                |
| Robert <i>et al.</i> (2004, 2005)   | d | 0.2            |
| <b>3-(ACETYLTHIO)-2-ETHYLHEXANAL</b>  |   |                |
| Robert <i>et al.</i> (2004, 2005)   | d | 0.015          |
| <b>3-(ACETYLTHIO)-2-METHYLPENTANAL</b>  |   |                |
| Robert <i>et al.</i> (2004, 2005)   | d | 0.005          |
| <b>3-(ACETYLTHIO)-2-PENTYLNONANAL</b>   |   |                |
| Robert <i>et al.</i> (2004, 2005)   | d | 0.5            |
| <b>3-(ACETYLTHIO)-2-PROPYLHEPTANAL</b>  |   |                |
| Robert <i>et al.</i> (2004, 2005)   | d | 0.05           |
| acrolein⇒2-PROPENAL   |   |                |
| acrylic acid⇒PROPENOIC ACID   |   |                |
| acrylonitrile⇒ETHENYL CYANIDE   |   |                |
| active amyl acetate⇒2-METHYLBUTYL ACETATE   |   |                |
| active amyl alcohol⇒2-METHYL-1-BUTANOL  |   |                |
| aldehyde C14⇒TETRADECANAL   |   |                |
| aldehyde C16⇒ETHYL 3-METHYL-3-PHENYL-2,3-EPOXYPROPANOATE  |   |                |
| aldrin⇒1,2,3,4,10,10-HEXACHLORO-1,4,4a,5,8,8a-HEXAHYDRO-1,4-endo-exo-5,8-DIMETHANONAPHTHALENE                       |   |                |
| allyl chloride⇒3-CHLOROPROPENE  |   |                |
| <b>4-ALLYL-1,2-DIMETHOXYBENZENE (methyleugenol, eugenol methyl ether, 4-allylveratrole) [93-15-2]</b>               |   |                |
| Buttery <i>et al.</i> (1974); Takeoka (2001)  | d | 0.068          |
| Pyysalo <i>et al.</i> (1977)  | d | 0.82           |
| Sugisawa <i>et al.</i> (1991); Yang <i>et al.</i> (1992);<br>Tamura <i>et al.</i> (1993)                            | d | 0.775 - 8.5    |
| <b>ALLYL ISOTHIOCYANATE (allyl mustard oil) [57-06-7]</b>   |   |                |
| Kauffmann (1907)  |   | 3.8            |
| Buttery <i>et al.</i> (1976b); Buttery (1993)   | d | 0.375          |
| Masuda <i>et al.</i> (1996)   |   | 0.046          |
| <b>1-ALLYL-4-METHOXYBENZENE (estragole, methylchavicol) [140-67-0]</b>  |   |                |
| Williams <i>et al.</i> (1977)   | d | 0.035          |
| Zeller & Rychlik (2006)   | r | 0.016          |
| Czerny <i>et al.</i> (2008)   | d | 0.006          |
| Czerny <i>et al.</i> (2008)   | r | 0.016          |
| <b>5-ALLYL-1-METHOXY-2,3-(METHYLENEDIOXY)BENZENE (myristicin) [607-91-0]</b>  |   |                |
| Buttery <i>et al.</i> (1968)  | d | 0.025          |
| Blank <i>et al.</i> (1992)  |   | 0.03           |
| Zeller & Rychlik (2006)   | r | 0.088          |
| <b>4-ALLYL-2-METHOXYPHENOL (eugenol) [97-53-0]</b>  |   |                |

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|  |   |               |
|--|---|---------------|
| Appell (1969)  |   | 0.06          |
| Buttery <i>et al.</i> (1971,1974,1987b,1990a);<br>Buttery (1981,1993); Takeoka (2001)    | d | 0.006 - 0,011 |
| Pyysalo <i>et al.</i> (1977)   | d | 0.030         |
| Dietz & Traud (1978)   |   | 0.04          |
| Sugisawa <i>et al.</i> (1991); Yang <i>et al.</i> (1992);<br>Tamura <i>et al.</i> (1993) | d | 0.1           |
| Blank <i>et al.</i> (1992)   |   | 0.15          |
| Bonfils <i>et al.</i> (2004)   | d | 0.47          |
| Pino & Mesa (2006)   | d | 0.006         |
| Zeller & Rychlik (2006)  | r | 0.0025        |
| Czerny <i>et al.</i> (2008)  | d | 0.000 71      |
| Czerny <i>et al.</i> (2008)  | r | 0.0025        |

## 4-ALLYL-1,2-(METHYLENEDIOXY)BENZENE (safrole) [94-59-7]

|                  |  |              |
|------------------|--|--------------|
| Helbig (1939)    |  | 0.0407       |
| Le Magnen (1952) |  | 0.01 - 0.033 |
| Appell (1969)    |  | 0.16         |

allyl mustard oil⇒ALLYL ISOTHIOCYANATE

## 2-(ALLYLTHIO)ETHANAL

|                              |  |         |
|------------------------------|--|---------|
| Rössner <i>et al.</i> (2002) |  | 0.000 2 |
|------------------------------|--|---------|

4-allylveratrole⇒4-ALLYL-1,2-DIMETHOXYBENZENE

ambrox⇒(3aR)-3a,6,6,9a-TETRAMETHYL-3aα,5aβ,9aα,9bβ-DODECAHYDRONAPHTHO[2,1-b]FURAN  
(d)-ambrox⇒(+)-(3aR)-3a,6,6,9a-TETRAMETHYL-3aα,5aβ,9aα,9bβ-DODECAHYDRONAPHTHO[2,1-b]FURAN  
(l)-ambrox⇒(-)-(3aS)-3a,6,6,9a-TETRAMETHYL-3aα,5aβ,9aα,9bβ-DODECAHYDRONAPHTHO[2,1-b]FURAN  
5β-ambrox⇒3aβ,6,6,9aβ-TETRAMETHYL-1,2,3a,4,5,5aβ,6,7,8,9a,9bβ-DODECAHYDRONAPHTHO[2,1-b]FURAN

## 2'-AMINOACETOPHENONE [551-93-9]

|   |   |                    |
|---|---|--------------------|
| Buttery & Ling (1994,1995,1998); Buttery (1999) | d | 0.000 2            |
| Karagül-Yüceer <i>et al.</i> (2003, 2004)       | d | 0.000 28 – 0.000 3 |
| Czerny <i>et al.</i> (2008)                     | d | 0.000 27           |
| Czerny <i>et al.</i> (2008)                     | r | 0.000 64           |

## 4'-AMINOACETOPHENONE [99-92-3]

|                                       |   |           |
|---------------------------------------|---|-----------|
| Buttery & Ling (1994); Buttery (1999) | d | 100 - 108 |
|---------------------------------------|---|-----------|

## 2-AMINOENZALDEHYDE [529-23-7]

|                |   |       |
|----------------|---|-------|
| Buttery (1999) | d | 0.011 |
|----------------|---|-------|

## 2-AMINO-1,5-DIHYDRO-1-METHYL-4H-IMIDAZOL-4-ONE (creatinine) [60-27-5]

|                      |  |      |
|----------------------|--|------|
| Dietz & Traud (1978) |  | > 10 |
|----------------------|--|------|

## 2-AMINOETHANOL (ethanolamine) [141-43-5]

|                                |   |    |
|--------------------------------|---|----|
| Alexander <i>et al.</i> (1982) | d | 32 |
|--------------------------------|---|----|

## 2-(2-AMINOETHYLAMINO)ETHANOL (aminoethylethanolamine) [111-41-1]

|                                |   |     |
|--------------------------------|---|-----|
| Alexander <i>et al.</i> (1982) | d | 2.8 |
|--------------------------------|---|-----|

aminoethylethanolamine⇒2-(2-AMINOETHYL)AMINOETHANOL

## 6-AMINOHEXANOIC ACID LACTAM (caprolactam) [105-60-2]

|                         |   |      |
|-------------------------|---|------|
| Lillard & Powers (1975) | d | 59.7 |
|-------------------------|---|------|

## (S)-(-)-2-AMINO-3-(4-HYDROXYPHENYL)PROPANOIC ACID (L-tyrosine) [60-18-4]

|                      |  |      |
|----------------------|--|------|
| Dietz & Traud (1978) |  | > 10 |
|----------------------|--|------|

## (R)-(+)-2-AMINO-3-MERCAPTOPROPANOIC ACID (L-cysteine) [52-90-4]

|              |   |    |
|--------------|---|----|
| Laska (2010) | d | 24 |
|--------------|---|----|

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(S)-(-)-2-AMINO-3-MERCAPTOPROPANOIC ACID (D-cysteine) [921-01-7]

Laska (2010) d 27

(R)-(-)-2-AMINO-4-(METHYLTHIO)BUTANOIC ACID (D-methionine) [348-67-4]

Laska (2010) d 1.5

(S)-(+)-2-AMINO-4-(METHYLTHIO)BUTANOIC ACID (L-methionine) [63-68-3]

Laska (2010) d 12

2-AMINO-3-PHENYLPROPANOIC ACID (phenylalanine) [150-30-1]

Dietz & Traud (1978) > 10

1-AMINO-2-PROPANOL (isopropanolamine) [78-96-6]

Alexander *et al.* (1982) d 28

N-(3-AMINOPROPYL)-1,4-BUTANEDIAMINE (spermidine) [124-20-9]

Wang *et al.* (1975) d 129

$\alpha$ -AMINOTOLUENE (benzylamine) [100-46-9]

Moncrieff (1957) 3,000

AMMONIA [7664-41-7]

Brown *et al.* (1968) 1.25

Amoore & Forrester (1976) d 23.9

Kikuchi *et al.* (1976) 110

AMMONIUM HYPOCHLORITE

Krasner & Barrett (1984) 0.35

amyl acetate  $\Rightarrow$  PENTYL ACETATE

*tert*-amyl acetate  $\Rightarrow$  1,1-DIMETHYLPROPYL ACETATE

amyl alcohol  $\Rightarrow$  1-PENTANOL

*tert*-amyl alcohol  $\Rightarrow$  2-METHYL-2-BUTANOL

amyl butyrate  $\Rightarrow$  PENTYL BUTANOATE

amyl isobutyrate  $\Rightarrow$  PENTYL 2-METHYLPROPANOATE

amyl mercaptan  $\Rightarrow$  1-PENTANETHIOL

*tert*-amyl mercaptan  $\Rightarrow$  2-METHYL-2-BUTANETHIOL

*tert*-amyl methyl ether  $\Rightarrow$  2-METHOXY-2-METHYLBUTANE

amyl salicylate  $\Rightarrow$  PENTYL SALICYLATE

amyl valerate  $\Rightarrow$  PENTYL PENTANOATE

4,16-ANDROSTADIEN-3-ONE (8*S*,9*S*,10*R*,13*R*,14*S*)-10,13-dimethyl-1,2,6,7,8,9,11,12,14,15-decahydrocyclopenta[a]phenanthren-3-one [4075-07-4]

Amoore *et al.* (1977) d 0.000 98

5 $\alpha$ -ANDROSTAN-3 $\alpha$ -OL

Amoore *et al.* (1977) d 0.011

5 $\alpha$ -ANDROSTAN-3 $\beta$ -OL [1224-92-6]

Amoore *et al.* (1977) d > 0.250

5 $\alpha$ -ANDROSTAN-3-ONE [1224-95-9]

Amoore *et al.* (1977) d 0.000 62

5 $\alpha$ -ANDROST-16-EN-3 $\alpha$ -OL [1153-51-1]

Amoore *et al.* (1977) d 0.0062

4-ANDROSTEN-3-ONE

Amoore *et al.* (1977) d 0.002 2

5 $\alpha$ -ANDROST-16-EN-3-ONE [18339-16-7]

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Amoore *et al.* (1977) d 0.000 18  
 Gower *et al.* (1985) 0.000 2 - 0.002

(*E*)-anethole⇒1-METHOXY-4-((*E*)-1-PROPENYL)BENZENE  
*trans*-anethole⇒1-METHOXY-4-((*E*)-1-PROPENYL)BENZENE

**ANILINE [62-53-3]**

Baker (1963) 70.1

anisaldehyde⇒4-METHOXYBENZALDEHYDE  
*p*-anisaldehyde⇒4-METHOXYBENZALDEHYDE  
 anise alcohol⇒4-METHOXYBENZYL ALCOHOL  
 anisketone⇒1-(4-METHOXYPHENYL)-2-PROPANONE  
 anisole⇒METHOXYBENZENE  
 anisyl alcohol⇒4-METHOXYBENZYL ALCOHOL

**AZACYCLOHEPTANE (hexamethyleneimine) [111-49-9]**

Amoore *et al.* (1975b) d 46.9

azacyclohexane⇒PIPERIDINE

**AZACYCLOOCTANE (heptamethyleneimine) [1121-92-2]**

Amoore *et al.* (1975b) d 82.8

**AZACYCLOTRIDECANE (dodecamethyleneimine, 1,12-dodecamethylene diamine) [295-03-4]**

Zyabbarova & Kuklina (1979) 0.1

**AZETIDINE (trimethyleneimine) [503-29-7]**

Amoore *et al.* (1975b) d 21.9

azine⇒PYRIDINE  
 azole⇒PYRROLE  
 azolidine⇒PYRROLIDINE

**B****BENZALDEHYDE [100-52-7]**

Buttery *et al.* (1969b,1971,1987b,1988a,1994a,1997,1999); Guadagni (1970b); Hansen *et al.* (1992);  
 Buttery & Ling (1995,1998) d 0.35  
 Tilgner & Ziminska (1982) 0.32  
 Rabin & Cain (1986) d 1.4 - 2.2  
 Delfini (1987) 0.5 - 1.0  
 Buttery *et al.* (1990a);Buttery (1993) d 3.5  
 Sugisawa *et al.* (1991); Yang *et al.* (1992);  
 Tamura *et al.* (1993,1995) d 1 - 4.6  
 Darriet *et al.* (2002) d 0.3  
 Fabrellas *et al.* (2004) 0.024 - 0.047  
 Pino & Mesa (2006) d 0.35  
 Giri *et al.* (2010) d 0.75089

**BENZENE [71-43-2]**

Holluta (1960) 2  
 Baker (1963) 31.3  
 Zoeteman *et al.* (1971) 10  
 Alexander *et al.* (1982) d 0.072  
 Sarzynski (1982) 111

benzeneacetaldehyde⇒2-PHENYLETHANAL  
 1,2-benzenediol⇒1,2-DIHYDROXYBENZENE  
 1,3-benzenediol⇒1,3-DIHYDROXYBENZENE  
 1,4-benzenediol⇒1,4-DIHYDROXYBENZENE