

AIR detection (d) and recognition (r) odour threshold values in mg/m³

A

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

acetaldehyde⇒ETHANAL

acetamide⇒ETHANAMIDE

ACETANILIDE [103-84-4]

Laffort (1968a) 270

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

Passy (1893b,1893c)	d	5 - 10
Grijns (1906)		49 - 76
Backman (1917)	r	4.8 - 5.0
Grijns (1919)		2
Mitsumoto (1926)	r	0.074 - 0.57
Hesse (1926)	r	0.6
Henning (1927)	d	3.6
Morimura (1934)	r	1.82 - 1.91
Jung (1936)	d	0.025
Jung (1936)	r	0.05
Balavoine (1943,1948)		300 - 500
Stone (1963c)	d	3.9
Stone & Bosley (1965)	d	4.2
Endo <i>et al.</i> (1967)		6.5
Takhirova (1969,1974)		0.60
Leonardos <i>et al.</i> (1969)	r	2.5
Homans <i>et al.</i> (1978)		0.37
Nauš (1982)	d	0.5
Nauš (1982)	r	25
Punter (1983)	d	0.09
Homans (1984)		0.93
Walker <i>et al.</i> (1990)		5.0
Nagy (1991)	d	0.37
Blank & Schieberle (1993)		0.03 - 0.09
Walker <i>et al.</i> (1996)		0.25 - 2.5
Cometto-Muñiz <i>et al.</i> (1998a);		
Cometto-Muñiz (1999)	d	0.025
Nagata (2003)	d	0.015
Van Thriel <i>et al.</i> (2006)	d	1.45
Wise <i>et al.</i> (2007); Miyazawa <i>et al.</i> (2009a)	d	0.017 - 0.020
Miyazawa <i>et al.</i> (2009b)	d	0.001
Cain <i>et al.</i> (2010)	d	0.15
Cometto-Muñiz & Abraham (2010b)	d	0.013

ACETIC ANHYDRIDE [108-24-7]

Takhirova (1969)		0.49
Hellman & Small (1973,1974)	d	< 0.6
Hellman & Small (1973,1974)	r	1.5

acetone⇒PROPANONE

acetonitrile⇒METHYL CYANIDE

ACETOPHENONE [98-86-2]

Imasheva (1963)		0.01
Tkach (1965)		0.01

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Korneev (1965)		0.01
Gavaudan & Poussel (1966)		0.23
Hellman & Small (1973,1974)	d	1.5
Hellman & Small (1973,1974)	r	2.9
Sävenhed <i>et al.</i> (1985)	d	0.01 - 0.04
Randebrock (1986)		0.0012

acetyl chloride⇒ETHANOYL CHLORIDE

ACETYLDI-*tert*-BUTYL(METHYL)SILANE
Sunderkötter *et al.* (2010) > 0.5

ACETYLDICYCLOPROPYL(ETHYL)SILANE
Sunderkötter *et al.* (2010) 0.025

ACETYLDICYCLOPROPYL(METHYL)SILANE
Sunderkötter *et al.* (2010) 0.058

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

5-ACETYL-2,3-DIHYDRO-1,4-THIAZINE [164524-93-0]
Hofmann & Schieberle (1995,1997);
Hofmann *et al.* (1995) 0.000 02 - 0.000 08

2-ACETYL-5,6-DIHYDRO-4*H*-1,3-THIAZINE
Fuganti *et al.* (2007) 0.000 000 54

ACETYLDIISOPROPYL(METHYL)SILANE
Sunderkötter *et al.* (2010) 0.088

(-)-(9*R*,10*S*)-10-ACETYL-9,10-DIMETHYLBICYCLO[6.4.0]DODEC-1(8)-ENE
Kraft & Gallo (2004) 0.000 19

acetylene⇒ETHYNE

acetylene tetrabromide⇒ 1,1,2,2-TETRABROMOETHANE

7-ACETYL-1,1,3,4,4,6-HEXAMETHYL-1,2,3,4-TETRAHYDRONAPHTHALENE (fixolide, tonalide)
[1506-02-1]

McGee *et al.* (1995) d 0.000 5 - 0.005
Traynor (2001) 0.222

1-ACETYL-4-METHYLBENZENE (*p*-methyl acetophenone) [122-00-9]

Appell (1969) 0.000 15
Schieberle *et al.* (1988); Schieberle
& Grosch (1988) 0.002 - 0.0108
Blank *et al.* (1989) 0.002 - 0.003

(±)-3α-ACETYL-2,3,4,4αβ,5,6,7,8-OCTAHYDRO-3β,4β,5,5-TETRAMETHYLNAPHTHALENE
Etzweiler *et al.* (1992) 0.5

ACETYLPYRAZINE [22047-25-2]

Hofmann *et al.* (1995);
Hofmann & Schieberle (1997) 0.000 4

2-ACETYLPYRROLE [1072-83-9]

Hofmann & Schieberle (1997) > 2

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2-ACETYL-1-PYRROLINE (2-acetyl-3,4-dihydro-2H-azole) [85213-22-5]

Blank *et al.* (1989); Schieberle (1990,1991);
Schieberle & Grosch (1991,1994); Hofmann
et al. (1995); Hofmann & Schieberle (1997) 0.000 02 - 0.000 04

6-ACETYL-1,2,3,4/2,3,4,5-TETRAHYDROPYRIDINE

Schieberle (1990); Schieberle & Grosch (1991);
Hofmann *et al.* (1995);
Hofmann & Schieberle (1997) 0.000 06

2-ACETYL-2,3,8,8-TETRAMETHYL-1,2,3,4,5,6,7,8-OCTAHYDRONAPHTHALENE (cyclemone)
[68991-97-9]

Neuner-Jehle & Etzweiler (1991) 0.000 003

2-ACETYLTHIAZOLE [24295-03-2]

Hofmann *et al.* (1995);
Hofmann & Schieberle (1997) 0.004 - 0.0041

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

Hofmann & Schieberle (1995,1997);
Hofmann *et al.* (1995) 0.000 02 - 0.000 08
Cerny (1998) 0.000 016 - 0.000 022

acrolein⇒2-PROPENAL

acrylic acid⇒PROPENOIC ACID

acrylonitrile⇒ETHENYL CYANIDE

active amyl acetate⇒2-METHYLBUTYL ACETATE

active amyl alcohol⇒2-METHYL-1-BUTANOL

1-adamantanaldehyde⇒TRICYCLO[3.3.1.1(3.7)]DECANE-1-CARBOXALDEHYDE

adamsite⇒10-CHLORO-5,10-DIHYDROPHENARSAZINE

aldehyde C16⇒ETHYL 3-METHYL-3-PHENYL-2,3-EPOXYPROPANOATE

allyl alcohol⇒2-PROPEN-1-OL

allylamine⇒2-PROPENYLAMINE

7-ALLYLBENZO[*b*][1,4]DIOXEPIN-3-ONE

Kraft & Eichenberger (2003) 0.000 051

allyl caproate⇒2-PROPENYL HEXANOATE

allyl chloride⇒3-CHLOROPROPENE

1-ALLYL-2,5-DIMETHOXY-3,4-METHYLENEDIOXYBENZENE (apiole) [523-80-8]

Tempelaar (1913); Zwaardemaker (1927) d 610

allyl isocyanide⇒2-PROPENYL ISOCYANIDE

allyl mercaptan⇒2-PROPENE-1-THIOL

1-ALLYL-4-METHOXYBENZENE (estragole, methylchavicol) [140-67-0]

Williams *et al.* (1977) d 0.000 13

5-ALLYL-1-METHOXY-2,3-METHYLENEDIOXYBENZENE (myristicin) [607-91-0]

Blank & Grosch (1991a) 0.0015

4-ALLYL-2-METHOXYPHENOL (eugenol) [97-53-0]

Tempelaar (1913); Zwaardemaker (1927) d 0.2 - 0.23

Ohma (1922) d 0.23

Van Anrooij (1931) d 0.2

Baldus (1936) d 0.005 - 0.0055

Baldus (1936) r 0.007 - 0.01

Jones (1955c) r 3.8

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Appell (1969)		0.000 008
Huber (1984)		0.000 076
Randebrock (1986)		0.000 022
De Wijk (1989)		0.11
Blank <i>et al.</i> (1989)		0.000 2 - 0.000 3
Ferreira <i>et al.</i> (1998)		0.000 61

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

Tempelaar (1913); Zwaardemaker (1927)	d	0.1 - 2
Ohma (1922)	d	0.125
Van Anrooij (1931)	d	0.000 35
Baldus (1936)	d	0.005
Baldus (1936)	r	0.01
Jones (1955a)	r	0.08
Jones (1955b)	r	0.08 - 4.8
Jones (1955c)	r	3.0
Appell (1969)		0.000 07
Köster (1971)	d	16 - 30

allyl mustard oil⇒2-PROPENYL ISOTHIOCYANATE

ambretone⇒5-CYCLOHEXADECEN-1-ONE

ambrettolide⇒16-HYDROXY-7-HEXADECENOIC ACID LACTONE

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

Weeks <i>et al.</i> (1960)	d	6.5
Weeks <i>et al.</i> (1960)	r	60

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

Krichevskaya (1968)	d	0.30
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(R)-(+)-2-AMINO-3-MERCAPTOPROPANOIC ACID (L-cysteine) [52-90-4]

Laska (2010)	d	0.0045
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(S)-(-)-2-AMINO-3-MERCAPTOPROPANOIC ACID (D-cysteine) [921-01-7]

Laska (2010)	d	0.0048
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(R)-(-)-2-AMINO-4-(METHYLTHIO)BUTANOIC ACID (D-methionine) [348-67-4]

Laska (2010)	d	0.000 22
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(S)-(+)-2-AMINO-4-(METHYLTHIO)BUTANOIC ACID (L-methionine) [63-68-3]

Laska (2010)	d	0.0018
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1-AMINONAPHTHALENE (1-naphthylamine) [134-32-7]

Backman (1917)	r	0.14 - 0.29
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2-AMINONAPHTHALENE (2-naphthylamine) [91-59-8]

Backman (1917)	r	1.4 - 1.9
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AMMONIA [7664-41-7]

Valentin (1848,1850)		21
Grijns (1906)		21.6 - 42
Fieldner <i>et al.</i> (1921)		37
Smolczyk & Cobler (1930)		0.71 - 7.1
Geier (1936)	d	1.25
Geier (1936)	r	2.5
Carpenter <i>et al.</i> (1948)		0.7
Smyth (1956)	r	< 0.7

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Patty (1962a)		< 3.5
Saifutdinov (1966)		0.50 - 0.55
Endo <i>et al.</i> (1967)		37
Leonardos <i>et al.</i> (1969)	r	33
Hamanabe <i>et al.</i> (1969)		0.03
Stephens (1971)		2.7
Nishida <i>et al.</i> (1975)	d	1.8 - 37.8
Hill & Barth (1976)		21
Schoedder (1977)		5.0 - 7.6
Logtenberg (1978)	d	5.2
Nishida <i>et al.</i> (1979)	d	11.6
Anon. (1980)	d	0.1
Anon. (1980)	r	0.4
Nauš (1982)	d	1.5
Nauš (1982)	r	35
Nagy (1991)	d	3.7
Nagata (2003)	d	1.1
Van Thriel <i>et al.</i> (2006)	d	0.04
Smeets <i>et al.</i> (2007)	d	1.8 (static olfactometry)
Smeets <i>et al.</i> (2007)	d	1.8 (dynamic olfactometry)

amyl acetate⇒PENTYL ACETATE

amyl alcohol⇒1-PENTANOL

tert-amyl alcohol⇒2-METHYL-2-BUTANOL

amyl butyrate⇒PENTYL BUTANOATE

amyl isovalerate⇒PENTYL 3-METHYLBUTANOATE

amyl mercaptan⇒1-PENTANETHIOL

tert-amyl mercaptan⇒2-METHYL-2-BUTANETHIOL

amyl propionate⇒PENTYL PROPANOATE

amyl salicylate⇒PENTYL SALICYLATE

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]

Kraft & Popaj (2004) d 0.000 002

5α-ANDROST-16-EN-3α-OL [1153-51-1]

Bajgrowicz & Fráter (2000) 0.000 02

Kraft & Popaj (2004) d 0.000 000 67

5α-ANDROST-16-EN-3β-OL [7148-51-8]

Kraft & Popaj (2004) d 0.0053

5α-ANDROST-16-EN-3-ONE [18339-16-7]

Amoore (1977) d 0.0021

Baydar *et al.* (1992a,1993) d 0.000 000 868

Kraft & Popaj (2004) d 0.000 000 4

anethole⇒1-METHOXY-4-(1-PROPENYL)BENZENE

ANILINE [62-53-3]

Tempelaar (1913) d 0.97

Huijjer (1917); Zwaardemaker (1927) d 46

Backman (1917) r 5.0 - 5.8

Geier (1936) d 1.2 - 1.5

Geier (1936) r 2.0 - 2.5

Jacobson *et al.* (1958) 38

Tkachev (1963) 0.37

Leonardos *et al.* (1969) r 3.8

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Öztürk (1976)	d	2.21
Nauš (1982)	d	2
Nauš (1982)	r	20

anisaldehyde⇒4-METHOXYBENZALDEHYDE

anisole⇒METHOXYBENZENE

apiole⇒1-ALLYL-2,5-DIMETHOXY-3,4-METHYLENEDIOXYBENZENE

ARSINE [7784-42-1]

Patty (1962b)		< 3.2
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artificial musk⇒1-*tert*-BUTYL-3-METHYL-2,4,6-TRINITROBENZENE

azine⇒PYRIDINE

aziridine⇒ETHYLENEIMINE

azolidine⇒PYRROLIDINE

B

BENZALDEHYDE [100-52-7]

Backman (1917)	r	0.33 - 0.50
Rocén (1920)	r	1.7
Ohma (1922)	d	0.44
Katz & Talbert (1930)		0.18
Jones (1955c)	r	4.1
Pliška & Janiček (1965)		13
Knuth (1973)		0.27
Laing (1975)	d	4.3
Nishida <i>et al.</i> (1979)	d	3,400
Randebrock (1986)		0.014
Stevens & Cain (1987a)	d	0.43 - 43
Khiari <i>et al.</i> (1992)	d	< 0.01
Von Ranson & Belitz (1992b)	d	0.61
Von Ranson & Belitz (1992b)	r	2.1
McGee <i>et al.</i> (1995)	d	0.1 - 1
Yang <i>et al.</i> (2008)		0.085

BENZENE [71-43-2]

Backman (1917)	r	6.6 - 6.9
Backman (1918); Zwaardemaker (1927)		5 - 5.3
Grijns (1919); Zwaardemaker (1927)		420
Schley (1934)	d	8.8
Schley (1934)	r	12
Jones (1954)	r	480 - 510
Jones (1955c)	r	180
Novikov (1957)		4.9
Deadman & Prigg (1959)	d	9
Gusev (1965)		2.8 - 4
Nauš (1962)	d	6
May (1966)	d	180
May (1966)	r	310
Elfimova (1966)		2.5
Schutte & Zubek (1967)	r	310
Leonardos <i>et al.</i> (1969)	r	15
Alibaev (1970)		2.9
Dravnieks (1971)		38
Köster (1971)	d	37
Dravnieks & Laffort (1972)		32.5