

Table 7. Table showing all the aldehyde volatiles reported in the literature that have been detected in faeces, urine, breath, skin secretions, milk, blood and saliva from healthy humans

CAS-number	Compound name	Faeces	Urine	Breath	Skin	Milk	Blood	Saliva
	aliphatic							
50-00-0	formaldehyde			Br	Sk			
75-07-0	acetaldehyde	F	U	Br	Sk	M	Bl	Sa
123-38-6	propanal	F	U	Br	Sk			Sa
123-72-8	butanal	F		Br	Sk	M		
110-62-3	pentanal	F	U	Br	Sk	M		Sa
66-25-1	hexanal	F	U	Br	Sk	M	Bl	Sa
111-71-7	heptanal	F	U	Br	Sk	M	Bl	Sa
124-13-0	octanal	F	U	Br	Sk	M	Bl	Sa
124-19-6	nonanal	F	U	Br	Sk	M		Sa
112-31-2	decanal	F		Br	Sk	M		Sa
112-44-7	undecanal	F		Br	Sk	M		Sa
112-54-9	dodecanal	F			Sk	M		Sa
10486-19-8	tridecanal	F			Sk			Sa
124-25-4	tetradecanal	F			Sk			Sa
2765-11-9	pentadecanal	F						
629-80-1	hexadecanal	F		Br	Sk			
638-66-4	octadecanal	F						
	branched							
78-84-2	2-methylpropanal	F	U	Br	Sk	M		
26140-47-6	methylbutanal					M		
590-86-3	3-methylbutanal	F	U	Br				Sa
96-17-3	2-methylbutanal	F	U	Br	Sk			Sa
97-96-1	2-ethylbutanal		U	Br				
123-15-9	2-methylpentanal			Br				Sa
15877-57-3	3-methylpentanal				Sk			
19269-28-4	3-methylhexanal	F						
123-05-7	2-ethylhexanal			Br				
645-62-5	2-ethyl-2-hexenal						Bl	Sa
996-12-3	2,2-dimethylhexanal				Sk			
55019-46-0	2-methylhexadecanal				Sk			
	unsaturated							
542-78-9	propanedial / malondialdehyde			Br				
107-02-8	2-propenal	F	U	Br	Sk			Sa
78-85-3	2-methyl-2-propenal / methacrolein	F	U	Br				Sa
123-73-9	2-butenal / crotonaldehyde	F		Br		M		Sa
7319-38-2	3-butenal		U					
107-86-8	3-methyl-2-butenal	F		Br				
497-03-0	2-methyl-2-butenal	F	U	Br	Sk			Sa
31424-04-1	n-pentenal				Sk	M		
1576-87-0	(E)-2-pentenal					M		
623-36-9	2-methyl-2-pentenal	F		Br				Sa
5362-56-1	4-methyl-2-pentenal			Br				
5362-50-5	4-methyl-3-pentenal			Br				
142-83-6	1,3-pentadiene-1-carboxaldehyde			Br				

CAS-number	Compound name	Faeces	Urine	Breath	Skin	Milk	Blood	Saliva
ui	hexenal				Sk			
505-57-7	2-hexenal					M	Bl	Sa
6789-80-6	Z-hex-3-enal					M		
28467-88-1	2-methyl-2-hexenal	F						
ui	heptenal				Sk			
18829-55-5	2-heptenal					M	Bl	Sa
929-22-6	E-4-heptenal					M		
6728-31-0	Z-4-heptenal					M		
4313-02-4	(E,Z)-2,4-heptadienal					M		
4313-03-5	(E,E)-2,4-heptadienal					M		
30361-28-5	octa-2,4-dienal					M		
2363-88-4	2,4-decadienal					M		
1070-66-2	2-n-butylacrolein		U					
2548-87-0	2-octenal, (E)-	F				M		
5392-40-5	3,7-dimethyl-2,6-octadienal				Sk			
6750-03-4	2,4-nonadienal				Sk	M		Sa
26370-28-5	2,6-nonadienal					M		
2463-53-8	2-nonenal				Sk			
18829-56-6	2-nonenal, (E)				Sk	M		Sa
60784-31-8	2-nonenal, (Z)					M		
30551-15-6	nonenal ui				Sk			
3913-81-3	2-decenal, (E)-					M		
2497-25-8	2-decenal-Z					M		
53448-07-0	2-undecenal, E-			Br		M		
141-27-5	geranial				Sk			Sa
	others							
39276-09-0	a furaldehyde					M		
498-60-2	3-furaldehyde	F	U					
98-01-1	furfural / furaldehyde	F	U	Br	Sk	M		
620-02-0	5-methyl-2-furancarboxaldehyde	F	U	Br				
10312-83-1	2-methoxyacetaldehyde			Br				
142423-24-3	methylene-cyclopropanecarboxaldehyde	F						
100-52-7	benzaldehyde	F	U	Br	Sk	M	Bl	Sa
104-87-0	4-methylbenzaldehyde	F						
1334-78-7	tolualdehyde ui			Br				
122-03-2	4-(1-methylethyl)-benzaldehyde		U					
123-11-5	4-methoxybenzaldehyde / p-anisaldehyde				Sk			
4397-53-9	4-phenylmethoxybenzaldehyde				Sk			
122-78-1	phenyl acetaldehyde / phenylethanal / benzene acetaldehyde	F				M		
21-33-5	4-hydroxy-3-methoxybenzaldehyde / Vanillin		U			M		
104-55-2	3-phenyl-2-propenal	F						Sa
5445-77-2	2-methyl-3-phenylpropanal	F						
51407-46-6	2-(4-tert-butylphenyl) propanal				Sk			
80-54-6	lilial / a-methyl-b-(p-tert-butylphenyl) propanal				Sk			Sa
116-26-7	safranal		U					

CAS-number	Compound name	Faeces	Urine	Breath	Skin	Milk	Blood	Saliva
101-39-3	methyl-cinnamaldehyde							Sa
122-40-7	pentyl cinnamaldehyde				Sk			Sa
101-86-0	alpha-hexyl cinnamaldehyde				Sk			Sa
165184-98-5	E-2-hexyl cinnamaldehyde				Sk			Sa
4411-89-6	alpha-ethylidenebenzeneacetaldehyde	F						
1074-12-0	phenylglyoxal	F						
21391-98-0	4-(1-methylethyl)-1-cyclohexene-1-carboxaldehyde		U					
2111-75-3	perilla aldehyde / (S)-4-(1-methylethenyl)-1-cyclohexene-1-carboxaldehyde							Sa
141-46-8	hydroxy-acetaldehyde			Br				
90-02-8	2-hydroxybenzaldehyde	F						
107-89-1	3-hydroxybutanal			Br				
57295-30-4	3-hydroxy-4-methylbenzaldehyde				Sk			
67-47-0	5-(hydroxymethyl)-2-furaldehyde				Sk			
134454-31-2	trans-4,5-epoxy-(E)-dec-2enal					M		
1192-58-1	1-methyl-(1H)-pyrrole-2-carbaldehyde			Br				
3268-49-3	3-(methylthio)-propanal	F	U			M		
5454-45-5	3-(ethylthio)propanal			Br				

NOTES

ui unidentified isomer