

Table 4. Table showing all the ether volatiles (including furans) 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
	alkyl / alkenyl ethers							
115-10-6	dimethyl ether	F		Br		M		
540-67-0	1-methoxyethane			Br				
1634-04-4	methyl tert-butyl ether			Br		M	Bl	
626-91-5	1-methoxy-3-methylbutane			Br				
4747-07-3	1-methoxyhexane				Sk			
2161-90-2	1,3-cyclohexadien-1-yl methyl ether			Br				
60-29-7	diethyl ether	F		Br			Bl	
625-54-7	2-ethoxypropane			Br				
108-20-3	Diisopropylether		U				Bl	
3424-89-3	propenyl propyl ether			Br				
637-92-3	ethyl tert-butyl ether			Br				
142-96-1	di-n-butyl ether	F						
629-82-3	1,1'-oxybisoctane / dioctyl ether				Sk			Sa
101-84-8	diphenyl ether				Sk			Sa
109-92-2	vinyl ethyl ether			Br				
926-65-8	vinyl isopropyl ether / (2-(ethenyloxy) propane)						Bl	
	phenoxy							
122-99-6	2-phenoxyethanol	F		Br	Sk			Sa
37421-04-8	2-phenoxyethylmethylamine				Sk			
7170-44-7	11-phenoxyundecanoic acid				Sk			
3380-34-5	5-chloro-2-(2,4-dichlorophenoxy)-phenol / triclosan						Bl	
79755-43-4	3,5-dibromo-2-(2,4-dibromophenoxy)phenol						Bl	
	anisoles / methoxy benzyl							
140-67-0	p-allyl anisole / Estragole	F		Br				Sa
104-46-1	anethole / 1-methoxy-4-(1-propenyl)benzene	F		Br				Sa
104-93-8	1-methoxy-4-methylbenzene	F						
97-53-0	eugenol				Sk			Sa
97-54-1	isoeugenol				Sk			Sa
151-10-0	1,3-dimethoxybenzene	F						
123-11-5	4-methoxybenzaldehyde / p-anisaldehyde				Sk			
121-34-6	4-hydroxy-3-methoxybenzoic acid				Sk			
150-76-5	4-methoxyphenol						Bl	
2475-92-5	methoxyphenyl oxime						Bl	
55-10-7	4-hydroxy-3-methoxymandelic acid							Sa
104-45-0	1-methoxy-4-propyl-benzene			Br				Sa
4397-53-9	4-phenylmethoxybenzaldehyde				Sk			
21-33-5	4-hydroxy-3-methoxybenzaldehyde / Vanillin		U			M		
5466-77-3	4-methoxycinnamic acid, 2-ethylhexyl ester/ 2-ethylhexyl-4-methoxycinnamate				Sk			

CAS-number	Compound name	Faeces	Urine	Breath	Skin	Milk	Blood	Saliva
96436-87-2	4-methoxycinnamic acid, octyl ester/ 1-octyl-4-methoxycinnamate							Sa
	other alkoxy							
110-98-5	1,1'-oxybis-2-propanol				Sk			
110-80-5	2-ethoxyethanol	F		Br				
111-90-0	2-(2-ethoxyethoxy)-ethanol	F		Br				
112-07-2	1-acetoxy-2-butoxyethane			Br				
111-15-9	1-acetoxy-2-ethoxyethane			Br				
111-76-2	2-butoxyethan-1-ol		U	Br				
54446-78-5	1-(2-butoxyethoxy)ethanol			Br				
5131-66-8	1-butoxypropan-2-ol			Br				
10503-96-5	1-(2-chloroethoxy)butane			Br				
10143-66-5	dimethoxybutane				Sk			
109-87-5	dimethoxymethane			Br				
20637-49-4	1,2,3-trimethoxypropane				Sk			
13429-07-7	1-(2-methoxypropoxy)-2-propanol			Br	Sk			
623-69-8	1,3-dimethoxy-2-propanol			Br				
33330-50-6	4-ethoxy-2-pentanone		U					
763-69-9	3-ethoxypropionic acid ethyl ester			Br				
10312-83-1	2-methoxyacetaldehyde			Br				
625-45-6	2-methoxyacetic acid			Br				
6290-49-9	methoxy-acetic acid methyl ester			Br				
959247-28-0	methoxy acetic acid, dodecyl ester				Sk			
959263-00-4	methoxy acetic acid, tetradecyl ester				Sk			
107-98-2	1-methoxy-2-hydroxypropane			Br				
20324-32-7	1-(2-methoxy-1-methylethoxy)-2-propanol			Br				
34590-94-8	(2-methoxymethylethoxy)propanol			Br				
4225-42-7	2-methoxy-6-methyl-4H-pyran-4-one				Sk			
31053-55-1	2-methoxy-5-methylthiophene				Sk			
24985-48-6	2-methoxy-2-octen-4-one				Sk			
90-05-1	2-methoxyphenol		U	Br		M		
531-59-9	7-methoxycoumarin		U					
109-86-4	1-hydroxy-2-methoxyethane			Br				
1117-97-1	N-methoxymethylamine			Br				
16839-97-7	2-methoxythiophene		U					
89975-71-3	4-propoxy-2-butanone			Br				
71126-69-7	N,N-dimethyl-3-benzyloxypropylamine				Sk			
71126-65-3	N,N-dimethyl-3-butoxypropylamine				Sk			
105-57-7	diethyl acetal				Sk			
2749-70-4	bis(benzyloxy)methane				Sk			Sa

	furans							
110-00-9	Furan		U	Br		M		
1708-29-8	1-oxa-3-cyclopentene			Br				
1191-99-7	2,3-dihydrofuran	F		Br				
27137-41-3	methylfuran ui					M		
534-22-5	2-methylfuran	F	U	Br	Sk			
930-27-8	3-methylfuran	F	U	Br	Sk			
28802-49-5	dimethylfuran ui					M		
14920-89-9	2,3-dimethylfuran		U					
3710-43-8	2,4-dimethylfuran		U	Br				Sa
625-86-5	2,5-dimethylfuran	F	U	Br			Bl	
ui	methyltetrahydrofuran ui					M		
96-47-9	2-methyltetrahydrofuran			Br				
2144-41-4	2,5-dimethyltetrahydrofuran			Br				
10504-04-8	2,3,5-trimethylfuran		U	Br				
27252-25-1	an ethylfuran					M		
3208-16-0	2-ethylfuran		U	Br				
1703-52-2	2-ethyl-5-methylfuran	F	U	Br				
3777-69-3	2-pentylfuran	F	U	Br		M		Sa
3777-70-6	2-hexylfuran			Br				
1192-62-7	2-acetylfuran	F	U	Br		M		
1193-79-9	2-acetyl-5-methylfuran	F		Br				Sa
34314-83-5	2,3-dihydro-4-methylfuran				Sk			
4466-24-4	2-n-butylfuran	F				M		Sa
4412-91-3	3-furanmethanol	F						
98-00-0	2-furanmethanol / furfuryl alcohol		U	Br	Sk	M		
39276-09-0	furaldehyde ui					M		
498-60-2	3-furaldehyde	F	U					
98-01-1	Furfural / furaldehyde	F	U	Br	Sk	M		
3194-15-8	1-(2-furyl)-1-propanone			Br				
271-89-6	1-benzofuran			Br	Sk	M		
28715-26-6	4,7-dimethylbenzofuran		U	Br				Sa
1487-18-9	2-vinylfuran			Br		M		
31093-57-9	vinylfuran ui	F	U					
75135-41-0	2-(2-propenyl)-furan			Br				
4229-91-8	2-n-propylfuran			Br				
494-90-6	4,5,6,7-tetrahydro-3,6-dimethylbenzofuran		U	Br				Sa
2390-94-5	trans-tetrahydro-2,5-dimethyl-furan	F						
7416-35-5	tetrahydro-2,2-dimethyl-5-(1-methyl-1-propenyl)furan		U	Br				
109-99-9	tetrahydrofuran	F				M		
1334-76-5	methyl furoate				Sk			
4265-25-2	2-methylbenzofuran	F						
26895-04-5	methyl furaldehyde					M		
67-47-0	5-(hydroxymethyl)-2-furaldehyde				Sk			
620-02-0	5-methyl-2-furancarboxaldehyde	F	U	Br				
28588-74-1	2-methylmercaptofuran		U					
13678-59-6	2-methyl-5-(methylthio)furan		U					
3188-00-9	2-methyltetrahydrofuran-3-one		U					

	other cyclic ether							
75-21-8	ethylene oxide	F		Br				
6921-35-3	3,3-dimethyloxetane	F						
646-06-0	1,3-dioxolan			Br				
123-91-1	1,4-diethylene dioxide			Br			Bl	
1487-99-6	2,7-dimethyl-oxepine	F						
288-42-6	oxazole / 1,3-oxazole			Br	Sk			
110-88-3	1,3,5-trioxan			Br				
123-63-7	2,4,6-trimethyl-1,3,5-trioxane / paraldehyde						Bl	
5981-06-6	1,3,5-trioxacycloheptane			Br				
110-87-2	2,3-dihydropyran		U	Br		M		
1786-08-9	3,6-dihydro-4-methyl-2-(2-methyl-1-propenyl)-(2H)-pyran		U					
7392-19-0	2-ethenyltetrahydro-2,6,6-trimethyl-2H-pyran		U					
41678-29-9	trans-edulan		U					
470-67-7	1,4- cineole / isocineole		U					
470-82-6	1,8-cinneole / eucalyptol		U	Br		M		Sa
5989-33-3	trans-linaloloxide		U					
65416-59-3	vitispirane		U					
1222-05-5	galaxolide				Sk			
17699-05-7	alpha-bergamotene	F						
134454-31-2	trans-4,5-epoxy-(E)-dec-2enal					M		
100-74-3	4-ethylmorpholine				Sk			
5807-02-3	2-(N-morpholino)acetonitrile			Br				
1696-20-4	1-morpholin-4-yl-ethanone			Br				

NOTES

ui unidentified isomer