



Method Summary

Determination of PPCPs in Liquid by LCMSMS

Scope and Range

This method is used to determine selected PPCPs in water samples.

The target compound list, CAS numbers and limits of detection (LODs) are detailed in the table below.

This method is ISO:17025 accredited for a subset of 72 components. See the table below for the full accreditation status.

References

None used.

Principle

Preparation and Extraction

Samples are filtered and pH adjusted prior to analysis.

Isotope labelled analogues are added to the samples and used as internal standards (IS).

Extracted samples may contain interferences from other compounds contained within the sample matrix. Using the principles of MS/MS, many of these interferences will be eliminated. However, there may be occasions when interferences from non-target compounds arise from similar precursor and product ions. In these cases, reported limits of detection may be raised.

Analysis

A portion of sample is directly injected onto the LCMSMS system and analysed for the target components.

For clean waters, a larger portion of sample is taken and extracted via on-line SPE prior to separation and detection by LCMSMS.

Detection limits quoted are based on the large volume injection.



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Compound	CAS no.	LOD (ng/L)	ISO:17025	Compound	CAS no.	LOD (ng/L)	ISO:17025
1,7-Dimethylxanthine	611-59-6	50	N	Ketoprofen	22071-15-4	5	Y
2,4-D	94-75-7	20	Y	Ketorolac	74103-06-3	5	Y
Acesulfame-K	55589-62-3	100	Y	Lidocaine	137-58-6	5	Y
Acetaminophen	103-90-2	20	Y	Linuron	330-55-2	5	Y
Albuterol	18559-94-9	5	Y	Lopressor	51384-51-1	200	Y
Amoxicillin	26787-78-0	100	Y	Meclofenamic acid	644-62-2	50	Y
Androstenedione	63-05-8	10	N	Metazachlor	67129-08-2	5	Y
Atenolol	29122-68-7	5	Y	Metformin	657-24-9	100	Y
Atrazine	1912-24-9	2	Y	Methylparaben	99-76-3	5	Y
Bendroflumethiazide	73-48-3	10	Y	Metolachlor	51218-45-2	5	N
Bezafibrate	41859-67-0	5	Y	Naproxen	22204-53-1	20	Y
BPA	80-05-7	10	Y	Nifedipine	21829-25-4	10	Y
Bromacil	314-40-9	10	Y	Norethisterone	68-22-4	20	Y
Butyl paraben	94-26-8	10	Y	OUST	74222-97-2	5	Y
Caffeine	58-08-2	10	Y	Oxolinic acid	14698-29-4	20	Y
Carbadox	6804-07-5	20	Y	Pentoxifylline	6493-05-6	10	N
Carbamazapine	298-46-4	2	Y	Phenazone	60-80-0	20	Y
Carisoprodol	78-44-4	20	Y	Primidone	125-33-7	10	Y
Chloramphenicol	56-75-7	5	Y	Progesterone	57-83-0	20	N
Chloridazon	1698-60-8	10	Y	Propazine	139-40-2	5	Y
Chlorotoluron	15545-48-9	10	Y	Propylparaben	94-13-3	5	Y
Cimetidine	51481-61-9	20	Y	Quinoline	91-22-5	20	Y
Clofibric acid	882-09-7	10	Y	Salicylic acid	69-72-7	500	Y
Cotinine	486-56-6	10	Y	Simazine	122-34-9	5	Y
DACT	3397-62-4	50	N	Sucralose	56038-13-2	100	Y
DEA	6190-65-4	5	Y	Sulfachloropyridazine	80-32-0	5	Y
DEET	134-62-3	10	Y	Sulfadiazine	68-35-9	25	Y
Dehydronifedipine	67035-22-7	5	Y	Sulfadimethoxine	122-34-9	10	Y
DIA	1007-28-9	50	N	Sulfamerazine	127-79-7	5	Y
Diclofenac	439-14-5	30	Y	Sulfamethazine	57-68-1	20	Y
Dilantin	57-41-0	20	Y	Sulfamethizole	144-82-1	10	Y
Diltiazem	42399-41-7	5	Y				Y
Diuron	330-54-1	5	Y	Sulfamethoxazole	723-46-6	5	Y
Erythromycin	114-07-8	100	Y	Sulfathiazole	72-14-0	100	Y
Estradiol (E2)	50-28-2	50	N	TCEP	51805-45-9	1000	Y
Estriol (E3)	50-27-1	50	N	T CPP	13674-84-5	1000	N
Estrone (E1)	53-16-7	10	Y	TDCPP	13674-87-8	200	N
Ethyl-Estradiol (EE2)	57-63-6	100	N	Testosterone	58-22-0	20	Y
Ethylparaben	120-47-8	5	Y	Theobromine	83-67-0	50	Y
Flumequine	42835-25-6	50	N	Theophylline	58-55-9	100	N
Fluoxetine	54910-89-3	10	Y	Thiabendazole	148-79-8	5	Y
Gemfibrozil	25812-30-0	5	Y	Triclocarbon	101-20-2	50	N
Ibuprofen	15687-27-1	25	N	Triclosan	3380-34-5	50	Y
Iohexol	66108-95-0	50	Y	Trimethoprim	738-70-5	20	Y
Isoproturon	34123-59-6	20	Y	Warfarin	81-81-2	5	N