



# Method survey - microlitter

Requested information covered:

- status of the monitoring (established / planned)
- availability of monitoring data
- sampling strategy
- sample treatment
- particle identification / analysis
- QA / QC measures





## Method survey – microlitter in surface water

- status of the monitoring

established **3**

planned **5**

not planned yet **1**

- availability of monitoring data

available **2**

processed **2**

not available **5**





# Method survey – microlitter in surface water

- sampling strategy

number of stations	<15	<b>3</b>	≥15	<b>3</b>	
replicates per station	1	<b>5</b>	3	<b>1</b>	
sampling season	Spring	<b>1</b>	Summer	<b>3</b>	Autumn <b>1</b>
sampling device	Manta trawl/ plankton net	<b>4</b>	Pump	<b>1</b>	Ferry box <b>1</b>
filtered water volume (m <sup>3</sup> )	<100	<b>3</b>	100-1000	<b>5</b>	≥1000 <b>1</b>
sampling depth (m)	0-0.3	<b>7</b>	≥0.3	<b>2</b>	
Conservation additive	yes	<b>3</b>	no	<b>6</b>	





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- sample treatment I – digestion of biogenic organic material

sample volume (ml)	<200	<b>5</b>	≥200	<b>3</b>				
digestion solution	oxidizers	<b>5</b>	bases	<b>3</b>	enzymes	<b>2</b>	Acids	<b>1</b>
digestion T (°C)	rt	<b>4</b>	30 - 50	<b>3</b>	>50	<b>1</b>		
stirring	yes	<b>6</b>	no	<b>2</b>				
density separation	no	<b>7</b>	yes	<b>1</b>				





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- particle identification I

lower cut-off size ( $\mu\text{m}$ )	300	6	100	2				
upper cut-off size ( $\mu\text{m}$ )	5000	6	1000	1				
dimensions	yes	7	no	1				
shapes	fragments	7	fibers	7	spheres	5	films	3
colours	yes	5	no	3				





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- particle identification II

visual	yes	<b>8</b>	no	<b>0</b>		
hot needle test	yes	<b>3</b>	no	<b>5</b>		
Nile red staining	yes	<b>2</b>	no	<b>6</b>		
spectroscopically	yes	<b>7</b>	no	<b>2</b>		
subset for polymer identification (%)	20 – 50	<b>1</b>	50-100	<b>1</b>	100	<b>3</b>
identification method	( $\mu$ )FTIR	<b>5</b>	( $\mu$ )Raman	<b>3</b>	$\mu$ NIR	<b>1</b>





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- QA/QC measures

False positives (blanks)	yes	8	no	0
Recovery tests	yes	4	no	4
Air contamination assessment	yes	6	no	2
Precautionary measures	yes	8	no	0

