

Supplementary

Table S1: Summary of sampling scheme.

Sample	Town	Date of sampling	Duration of sampling (start and end time)	Weekday/ weekend day	Field blank
Macro-plastics	Nuuk	06/09/2022	08:50-12:00	Weekday	N
	Sisimiut	30/08/2022	05:45-09:10	Weekday	N
		16/09/2022	16:15-18:15	Weekday	N
		23/11/2022	07:30-9:00	Weekday	N
		23/11/2022	20:30-21:00	Weekday	N
Meso-plastics	Nuuk	01/09/2022	16:00-18:25	Weekday	N
		04/09/2022	17:45-20:10	Weekend day	N
		06/09/2022	06:20-08:45	Weekday	N
	Sisimiut	25/08/2022	18:30-21:00	Weekday	N
		26/08/2022	05:45-08:10	Weekday	N
		27/08/2022	13:20-15:45	Weekend day	N
Microplastics	Sisimiut	22/11-2022	11 am	Weekday	Y
		23/11-2022	7am	Weekday	Y

Table S2a. Number of microplastic fragments/foil/film particles in the blank samples (field blanks (n=2) and lab blanks (n=2)) as well as detection limits (DL) for the primary polymer types calculated as the mean value in the blank samples + 3 x standard deviation for the total content of microplastic fragments/foil/film particles per sample and per liter of wastewater.

Polymer type*	PE	PP	PES	PS	PVC	PC	PMMA	PA	PUR	ABS	Total	Mass (µg)
Average number of MP per blank field sample (n=2)	2	1	0.7	0	0	0	0	0	0	0	4.5	0.11
Average number of MP per blank lab sample (n=2)	2	6	0	0	0.3	0	0	0	0	0	8.3	0.13
Average number of MP per total blank sample (n=4)	2.0	3.5	0.3	0	0.2	0	0	0	0	0	6.0	0.12
DL for number of MP per blank sample	10	12	2	1	2	1	1	1	1	1	17	0.26
Average number of MP per liter blank sample	3.0	5.3	0.5	0	0.3	0	0	0	0	0	11.2	0.18
DL for number of MP per liter blank sample	15	18	3	2	3	2	2	2	2	2	26	0.39

* Polymer type: PE (polyethylene), PP (polypropylene), PS (polystyrene), PES (polyester), PVC (polyvinyl chloride), PC (polycarbonate), PMMA (polymethyl methacrylate), PA (polyamide), PUR (polyurethane), ABS (akrylonitrile butadiene styrene)

Table S2b. Number of microplastic fibers in the blank samples (field blanks (n=2) and lab blanks (n=2)) as well as detection limits (DL) for coloured and white fibers calculated as the mean value in the blank samples + 3 x standard deviation for the total content of microplastics per sample of wastewater.

Polymer Colour	Coloured fibers	White fibers	Total fibers
Average number of MP per blank field sample (n=2)	8.3	77	85.3
Average number of MP per blank lab sample (n=2)	12	60.5	72.5
Average number of MP per blank sample (n=4)	5	35	
DL for number of MP per blank sample	16	77	
Average number of MP per liter blank sample	7.6	53.0	
DL for number of MP per liter blank sample	24.2	116,7	

Table S3: Summary of a wet wipe survey in shops in Sisimiut. ‘%’ indicates that the product declaration lacks this information.

Brand	Trade name	Application purpose (baby, sanitary, cleaning)	Marked as biodegradable (B) and/or flushable (F)	Declaration (%PET, %viscose, bamboo etc)	FTIR-analysis	
					Primary polymer	Secondary polymer
<i>Personal care</i>						
Änglamark	Bamboo wipes	Baby		Bamboo	Viscose	
Änglamark	Dermacare makeup wipe	Sanitary, facial		Bamboo	Viscose	
Änglamark	Make up cleansing wipe	Sanitary face		%	PES (PET)	
Änglamark	Wipes	Baby		60% PES, 40% viscose	PES (PET)	
Cherish	Facial cleansing wipes 4 in 1	Sanitary, facial		%	PES (PET)	
Everyday eye depend	Make up removal wipe	Sanitary, face		100% viscose	Viscose	?
Grøn balance	Make-up 3i1 renseservietter	Sanitary, facial		70% viscose / 30% polyester	PES (PET)	
Grøn balance	Vådservietter	Baby		40% viscose / 60% polyester	PES (PET)	
Huggies	Natural	Baby	B	Natural fibers	Cellulose	
Kleenex	Water fresh wipes	Sanitary, hand & facial		%	PP	Cellulose
Libero	Hand & face wipes	Sanitary, hand & facial		%	Cellulose	
Libero	Wet wipes	Baby		100% viscose	Viscose	
Libresse	Dailies V-gentle	Sanitary, intimate areas		%	PES (PET)	
Lotus	Sensitive	Sanitary (toilet paper)	B/F	Natural fibers	Cellulose	
Nivea	Cleansing wipes	Sanitary, facial & eyes		Natural fibers	?	
Vivag	Intimservietter	Sanitary, intimate areas		%	Viscose	
Vivag	Intimservietter specielt til intimzonen	Sanitary, intimate areas		%	Viscose	
<i>Domestic/cleaning purposes</i>						
Ajax	Multi action	Cleaning glass wipes	B	Natural fibers	Viscose	
Ajax	Universal	Cleaning universal	B	Natural fibers	Viscose	
Ajax	Universal antibacterial	Cleaning universal			Viscose	

Coop	Cleaning wipe lemon	Cleaning universal	Viscose / Polyester	PES (PET)
Coop	Cleansing wipes- bathroom	Cleaning bathroom	Viscose / Polyester	PES (PET)
Coop	Stad-servetter	Cleaning bathroom	Viscose / Polyester	PES (PET)
Domestos	Absolute Hygiene	Cleaning universal	Natural fibers	Viscose
Klorin	Klorin wipes	Cleaning universal	%	PES (PET)
Lysol	Multipurpose wipes	Cleaning universal	%	Viscose
