toxics

Supplementary Materials: Uptake, Elimination and Effects of Cosmetic Microbeads on the Freshwater Gastropod *Biomphalaria glabrata*

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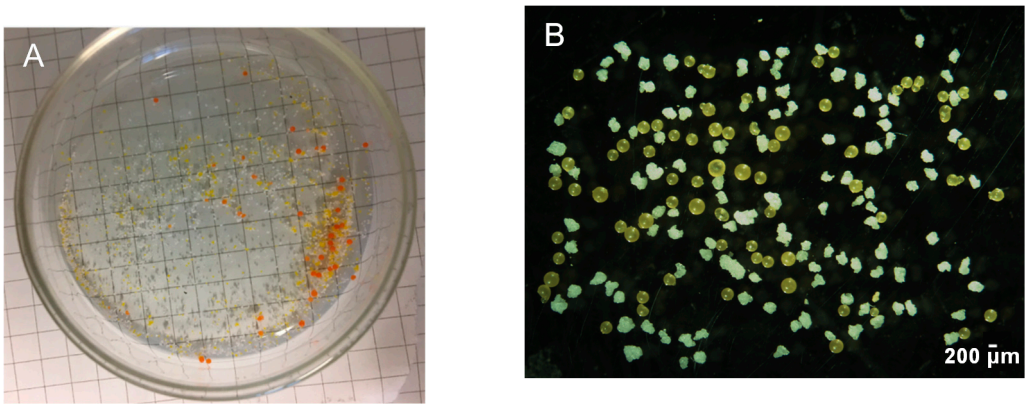

(A) (B)

Figure S1. Microbeads (**A**) extracted from facial scrub and those (**B**) used for bioassays.

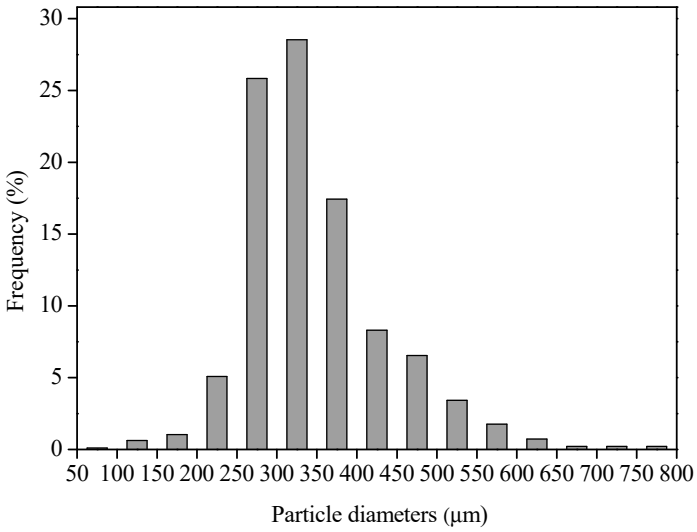

Figure S2. Size distribution of microbeads used for bioassays.

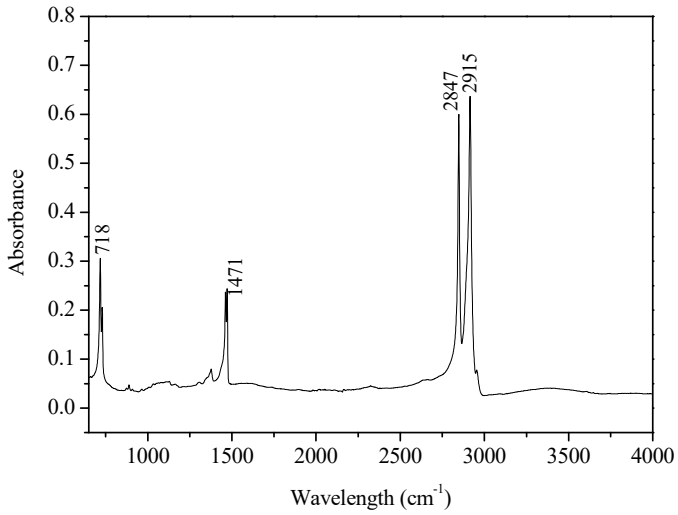

Figure S3. Fourier transform infrared (FT-IR) spectrum of the studied microbeads.

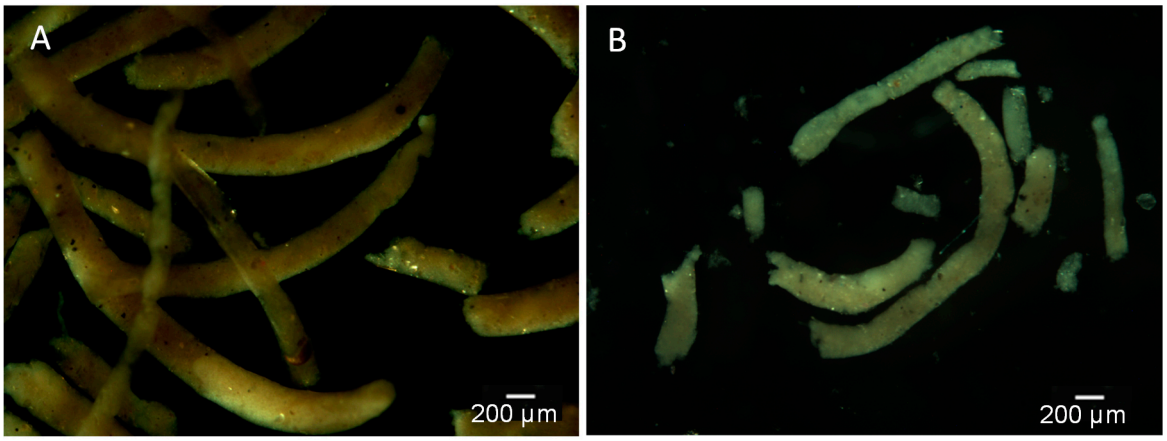

Figure S4. Faeces of adult (**A**) and young (**B**) *B. glabrata* in control groups over 48-h and 21-d exposures.

Table S1. Overview of the experimental design for experiment I-II.

	Experiment	Content	Endpoints or operation	Test concentrations	Number of animals /replicate/treatment	Replicates	Number of animals in total
I	Short-term (48 h)	Ingestion and egestion (I(a))	Microplastic quantification	0, 4 particles/mL (5 mg/L)	5 (4 for Exp. I(a))	6	4 × 2 treatments ×6 replicates = 48
		Acute toxicity (I(b))	Growth, survival				5 × 2 treatments × 6 replicates = 60
II	Long-term (21 d)	Ingestion and egestion II(a)	Microplastic quantification	0, 0.4 particle/mL (0.5 mg/L)	5 (4 for Exp. II(a))	6	4 × 2 treatments × 6 replicates = 48
		Chronic toxicity II(b)	Growth, survival				5 × 2 treatments × 6 replicates = 60

Table S2. Statistical parameters of size distribution (μm) of microbeads in different media for 48-h bioassay.

	Fragment				Sphere			
	Tissue	**Faeces**	**Exposure medium**	**Standard**	**Tissue**	**Faeces**	**Exposure medium**	**Standard**
Min	195	141	155	171	128	111	86	83
Max	906	816	672	789	629	443	427	442
Average	415	384	386	371	332	288	288	291
SD	109	103	104	90	66	65	57	52
Number	755	1102	79	660	351	67	162	304

Table S3. Statistical parameters of size distribution (μm) of microbeads in different media for 21-day bioassay.

	Fragments			Spheres		
	Tissue[a]	**Faeces**[b]	**Standard**	**Tissue**[a]	**Faeces**[b]	**Standard**
Min	194	112	171	150	126	83
Max	900	842	789	558	636	442
Average	398	386	371	279	276	291
SD	115	91	90	62	72	52
Number	163	1106	660	375	86	304

[a] Tissue samples were collected at Day 21.

[b] Faeces samples were collected at Day 2, 4, 6, 8, 16 and 21; here shown is the statistical results for all of the faeces samples.