

Table 1. MP concentrations in muscle and gut per unit body wet weight and the ratio between muscle and gut concentrations. Data adapted from Abbasi et al. (1) and Barboza et al. (2).

Species	N	Total weight of N species (g)	MP conc in muscle (#/BWW)	MP conc in gut (#/BWW)	Ratio (muscle:gut)	Reference
<i>Sillago sihama</i>	17	972.4	0.055	0.015	3.533	Abbasi et al., 2018
<i>Platycephalus indicus</i>	12	441.6	0.109	0.057	1.921	Abbasi et al., 2018
<i>Saurida tumbil</i>	4	144.4	0.083	0.069	1.200	Abbasi et al., 2018
<i>Cynoglossus abbreviatus</i>	11	833.8	0.031	0.037	0.838	Abbasi et al., 2018
<i>Dicentrarchus labrax</i>	50	17150	0.001	0.004	0.269	Barboza et al., 2019
<i>Trachurus trachurus</i>	50	11400	0.003	0.004	0.673	Barboza et al., 2019
<i>Scomber colias</i>	50	17200	0.002	0.003	0.508	Barboza et al., 2019
Average (\pm SD)					1.28 (\pm 1.13)	
Minimum					0.27	
Maximum					3.53	

Table 2. Search terms/strings for each food source in FOSCOLLAB

Food source	Search Strings
Fish	Fish (meat); Freshwater fish; Marine fish; Miscellaneous (misc.) coastal marine fishes; Misc. demersal marine fishes; Misc. freshwater fishes; Misc. pelagic marine fishes
Mollusc	Molluscs; Freshwater molluscs; Misc. marine molluscs
Crustacean	Crustaceans; Freshwater shrimps or prawns; Shrimps and prawns; Shrimps; common, White shrimp; Freshwater crayfishes
Tap Water	Tap water; Filtered tap water
Bottled Water	Bottled drinking water; Bottled water; Carbonated bottled drinking water; Flavoured bottled water; Fortified bottled water; Still bottled drinking water
Salt	Salt; Salt, flavoured; Salt, iodised; Salt, iodised and fluoridated; Salt, low Sodium; Sea salt
Beer	Beer; Beer and beer-like beverage; Ale beer; Lager beer; Beer, strong; Beer, regular; Beer, light; Beer, alcohol-free; Pale ale beer; Dark ale beer; Stout beer; Wheat beer; Beer-like beverages; Low malt beers
Milk	Milk; cow milk; cow milk, natural high fat; cow milk, semi skimmed (half fat); cow milk, skimmed (low fat); cow milk, whole

Table 3. Minimum and maximum inhalation rates defined for this study based on Allan and Richardson (3) and Stifelman (4).

Age category	Min inhalation rate (m ³ /day)	Max inhalation rate (m ³ /day)
Toddlers (7 months–4 years)	4.9	16.1
Children (5 – 11 years)	8.8	23.3
Teenagers (12 – 19 years)	9.5	27.9
Adults (20 – 59 years)	9.7	26.7
Seniors (>60 years)	8.6	24.1

Table 4. Biliary excretion rates (k_{tis}) for human. The rate constants for rat and mouse from Ogawara et al. (5) and Li et al. (6) were rescaled for human with a correction factor of 2.5 which is based on the ratio from the biliary excretion rates of rat:human from Bachler et al. (7).

Material	Size (nm)	Route of exposure	Organism	k_{tis} (min ⁻¹)	Reference
Polystyrene	50	Intravenous	Rat	5.76E-03	Ogawara et al. (5)
Polystyrene	500	Intravenous	Rat	5.56E-03	Ogawara et al. (5)
Silver NP	15-150	Dermal, oral, inhalation	Human	3.54E-03	Bachler et al. (7)
Silver NP	15-150	Dermal, oral, inhalation	Rat	9.00E-03	Bachler et al. (7)
Poly(lactic-co-glycolic) acid	133.5	Intravenous	Mouse	4.67E-05	Li et al. (6)
Poly(lactic-co-glycolic) acid	114.8	Intravenous	Mouse	4.67E-04	Li et al. (6)
Poly(lactic-co-glycolic) acid	97.4	Intravenous	Mouse	1.00E-04	Li et al. (6)
Poly(lactic-co-glycolic) acid	79	Intravenous	Mouse	3.87E-04	Li et al. (6)
Poly(lactic-co-glycolic) acid	67	Intravenous	Mouse	4.27E-04	Li et al. (6)
Poly(lactic-co-glycolic) acid	57.5	Intravenous	Mouse	2.73E-04	Li et al. (6)
				No excretion	0 day ⁻¹
				Minimum	0.0672 day ⁻¹
				Median	0.614 day ⁻¹
				Maximum	8.30 day ⁻¹

Table 5. Probability density functions for chemical concentrations on plastic of each source category. Goodness-of-fit analysis was not carried out for these datasets due to low sample size. Distributions with the best fit were evaluated visually.

Chemical	Source category	Distribution	Units	Parameters
PCB126	Pelagic	Exponential [†]	ng/g lipid	$\lambda=0.225$
	Littoral	Exponential [†]	ng/g lipid	$\lambda=17.48$
	Packaging	Triangle	$\mu\text{g/kg}$	min=0 max=7.9
	Air	Log-logistic [‡]	pg/m^3	$\beta=1.12$ $\alpha=0.155$
Lead	Pelagic	Lognormal	mg/kg ww	meanlog=-2.17 sdlog=2.12
	Littoral	Lognormal	mg/kg ww	meanlog=-1.78 sdlog=1.32
	Packaging	Lognormal	mg/kg	meanlog=4.00 sdlog=4.00
	Air	Lognormal	ng/m^3	meanlog=4.22 sdlog=1.88
DEHP	Pelagic	Lognormal	ng/g lipid	meanlog=8.83 sdlog=1.60
	Littoral	Triangle	ng/g lipid	min=0 max=5284
	Packaging	Log-logistic [‡]	$\mu\text{g/kg}$	$\beta=0.59$ $\alpha=89261.05$
	Air	Log-logistic [‡]	pg/m^3	$\beta=1.42$ $\alpha=35594.55$
BaP	Pelagic	Lognormal	ng/g lipid	meanlog=6.09 sdlog=3.55
	Littoral	Exponential	ng/g lipid [†]	$\lambda=0.023$
	Air	Log-logistic [‡]	pg/m^3	$\beta=1.55$ $\alpha=146.09$

[†] λ is the rate constant for an exponential distribution.

[‡] β is the shape parameter and α is the scale parameter for a log-logistic distribution.

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