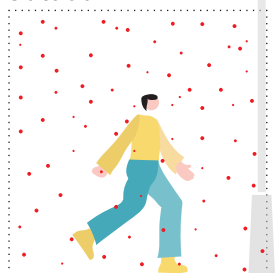


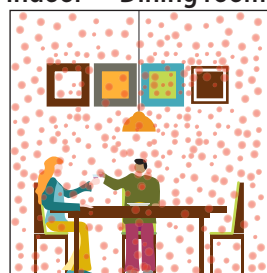
Microplastics in the air in 50 cubic meters

Outdoor



75 particles*

Indoor Dining room



3 000 particles*

Non intentionally added substances

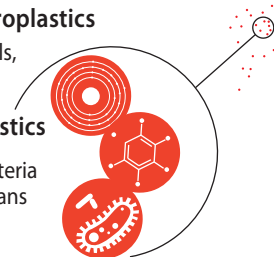
e.g. recycled plastics, food packaging

Adsorption of pollutants by microplastics

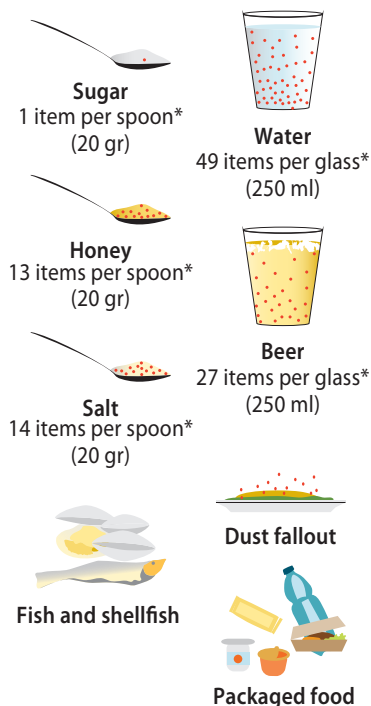
Pollutants include hazardous chemicals, antibiotic and heavy metals

Pathogens found on floating plastics

Vibrio spp., a well-known genus of bacteria containing pathogenic strains to humans and animals (e.g. cholera)

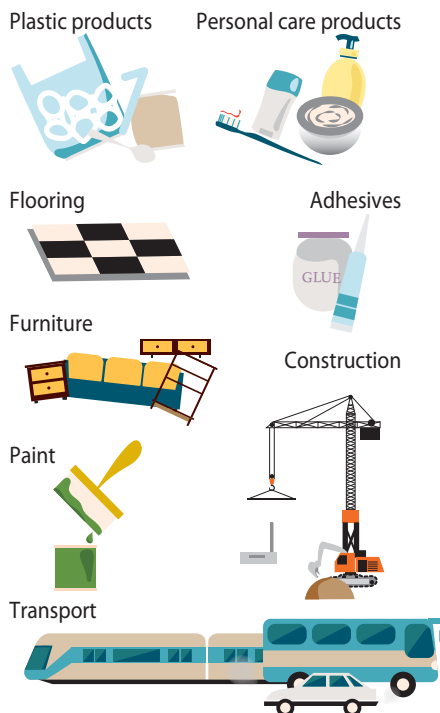


Microplastics in food



*Maximum value referred

Sources of toxic additives exposure



Main categories of plastic additives

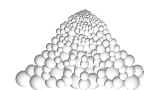
Functional

Stabilisers, antistatic agents, flame retardants, plasticizers, lubricants, slip agents, curing agents, foaming agents, biocides, etc.



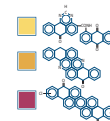
Fillers

Mica, talc, kaolin, clay, calcium carbonate, barium sulphate, etc.



Colourants

Pigments, soluble azo-colorants, etc.





Reinforcement

Glass fibres, carbon fibres, etc.



Health conditions linked to chemicals associated with plastics

-  Plasticizers (phthalates) and Bisphenol (monomer)
-  Flame retardants

Reproductive health - adults

Polycystic ovarian syndrome
Endometriosis
Male sub-fertility
Reduced sperm quality
Delayed time to pregnancy
Abnormal PAP smears
Pregnancy-induced hypertension and/or pre-eclampsia

Pregnancy outcomes - offspring

Gestational length
Birth-weight
Delayed pubertal timing
Genital structure (Ano-genital distance)
Pubertal onset

Neurodevelopmental disorders

Attention Deficit Hyperactivity Disorder
Autism
Neurobehaviour
IQ
Cognition

Hormonal

Thyroid disease
Thyroid cancer

Respiratory disease

Asthma

Cardiovascular disease

Metabolic disease

Type 2 diabetes
Childhood obesity
Increased waist circumference

Metabolic disease

Serum lipid levels, e.g. total cholesterol and LDL cholesterol

Decreases antibody response to vaccines