

Cynulliad Cenedlaethol Cymru | National Assembly for Wales
Y Pwyllgor Newid Hinsawdd, Amgylchedd a Materion Gwledig |
Climate Change, Environment and Rural Affairs Committee
Ymchwiliad Microblastigau | Microplastic Inquiry
PL 03
Ymateb gan : Cosmetic Toiletry and Perfumery Association (CTPA)
Evidence from : Cosmetic Toiletry and Perfumery Association (CTPA)

Please find enclosed the response from CTPA to the Climate Change, Environment and Rural Affairs Committee's inquiry into the impact of microplastic pollution in Welsh waterways.

[CTPA](#), the Cosmetic Toiletry and Perfumery Association, is the trade association representing the UK's cosmetics industry. Membership covers 80 - 85% of the UK cosmetics market by value.

In the UK and across the EU the manufacture and supply of cosmetic products is governed by the EU Cosmetic Products Regulation (EU No. 1223/2009) and its amendmentsⁱ, hereafter referred to as the Cosmetics Regulation. This Regulation and its amendments are directly applicable in all 28 EU Member States and EEA countries. The Cosmetics Regulation stipulates the requirements for labelling, safety assessment, product notification, good manufacturing practice (GMP) and ingredients for cosmetic products. The primary objective of the Cosmetics Regulation is maintaining a high level of human safety, and each cosmetic product must be the subject of a safety assessment performed by a duly qualified professional before it is placed on the market. The Responsible Person is responsible for ensuring compliance with all aspects of the Cosmetics Regulation.

The Cosmetics Regulation is enforced in the UK via the UK Cosmetic Products Enforcement Regulations 2013ⁱⁱ which specifies the role of the authorities, the penalties and the enforcement process. The Competent Authority for implementing the Cosmetics Regulation in the UK is the Department for Business, Energy and Industrial Strategy (BEIS) and enforcement in the UK is carried out by Trading Standards.

In addition to this, ingredients are subject to the European chemicals legislation, REACH (Registration, Evaluation & Authorisation of Chemicals) Regulationⁱⁱⁱ which looks at the safety and environmental aspects of all chemicals placed on the EU market – including cosmetic ingredients.

A cosmetic product is clearly defined in the Cosmetics Regulationⁱ as:

“a substance or mixture intended to be placed in contact with the external parts of the human body (epidermis, hair system, nails, lips and external genital organs) or with the teeth and the mucous membranes of the oral cavity with a view exclusively or mainly to cleaning them, perfuming them, changing their appearance, protecting them, keeping them in good condition or correcting body odours.”

ⁱ OJ L342/59 “Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products (recast)”

ⁱⁱ Statutory Instruments 2013 No. 1478 “The Cosmetic Products Enforcement Regulations 2013”

ⁱⁱⁱ OJ L396 Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Market Value

The UK cosmetics market was worth £9.7 billion at retail sales price in 2017^{iv} and was the third largest cosmetics market in the EU^v.

The UK cosmetics industry employs 200,000 people. There are at least 320 cosmetic producers in the UK; many of these are small and medium-sized enterprises (SMEs). The UK has the fourth largest concentration of cosmetics SMEs in the EU. Every 10 workers employed by the industry will support two jobs in the value chain, such as professionals using cosmetics, beauticians, hairdressers and stylists^{vi}.

The Importance of Cosmetic Products to Everyday Life

500 million people across the EU use cosmetic products each day, adding to their personal self-esteem and thereby contributing positively to growth and productivity as well as to society as a whole.

CTPA has commissioned several pieces of work between 2004 and 2013 in order to determine if and how cosmetic products contribute to consumers' well-being.

CTPA has conducted research into the significance of self-esteem for society, which reveals the need for us to recognise the crucial role that self-esteem plays throughout our lives, as well as the positive benefits that our industry can have on self-esteem. A report, "Me, Myself and Work", commissioned from think-tank The Work Foundation, revealed that self-esteem is the key driver of growth and productivity in the UK workplace^{vii}.

A YouGov survey^{viii} carried out on behalf of the CTPA (in April 2013 on a sample of 2,069 adults in the UK, aged 18+, weighted to be representative of the adult population) investigated how people rate their self-esteem and the different factors that affect this. Feeling confident about one's appearance rated as the most important factor for building up self-esteem, above having a large group of friends, being financially successful and having a supportive family.

- Three quarters (74%) of female respondents and almost half (49%) of men described cosmetics and toiletries as important to them for building their self-esteem.
- When asked which products were valued the most for building up self-esteem, deodorants and oral care products were rated most important by both sexes, followed by moisturiser and hair products.
- A third of female respondents reported that they would find it really hard to live without foundation or concealer, while one in four men valued aftershave for giving them that little, but important, lift in confidence.
- 88% of all respondents (and 96% of women) said they would find it hard to live without cosmetics and toiletries.

^{iv} The Cosmetic, Toiletry and Perfumery Association "Cosmetics Industry in Figures" Kantar Worldpanel, April 2018

^v Cosmetics Europe – The Personal Care Association 2017 Market Statistics (under preparation)

^{vi} The Cosmetic, Toiletry and Perfumery Association "[Getting the Best from Exiting the EU](#)"

^{vii} Andy Westwood – The Work Foundation "Me, Myself and Work. Self-esteem and the UK labour market", October 2004

^{viii} YouGov survey among 2069 UK adults aged 18+ carried out between 1 - 5 April 2013

Similar results were seen across Europe in research conducted by Cosmetics Europe, the European Personal Care Association. 'Consumer Insights 2017'^{ix} was based on an online survey of 4116 consumers in April 2017 across ten EU Member States (Bulgaria, Denmark, France, Germany, Italy, Netherlands, Poland, Sweden and UK). The report shows that cosmetics and personal care products play an important role in building self-esteem and enhancing social interactions every day, with 80% of consumers identifying cosmetics and personal care products as important or very important in building up self-esteem.

Thank you for the opportunity to respond to your inquiry. Should you require any additional information or have any questions regarding the information provided in the enclosed response, please don't hesitate to contact me.

Yours faithfully,

Dr Christopher Flower
Director-General

^{ix} Cosmetics Europe '[Consumer Insights 2017](#)' Survey

**CTPA Response to the Climate Change, Environment and Rural Affairs Committee Inquiry
into the Impact of Microplastic Pollution in Welsh Waterways**

To what extent are microplastics, including synthetic microfibers, a problem within Wales' aquatic environment? How does this impact on environmental and human health?

CTPA is unable to provide information on Wales' aquatic environment owing to a lack of published literature concerning Wales specifically.

Regarding the aquatic environment in general, many studies have demonstrated the presence of microplastics in marine and freshwater environments globally [1, 2]. It is recognised that the term "microplastic" describes a very diverse category of materials in terms of the ranges of polymer types, particle sizes (ranging over six orders of magnitude), shapes (from spheres to fibres) and chemical formulations (thousands of different types)." [3]

Adverse effects of microplastics on biota have been demonstrated. Primarily, these effects relate to non-nutritive contributions to biologically useful energy and physical effects including inflammatory response [4, 5].

However, a recent evaluation of ecotoxicity studies with microplastics found that many published studies report effects observed at much higher concentrations than those observed in the environment, and are therefore unrealistic, especially when assessing physical effects [6]. The consequence is that observed physical effects may be overestimated. As noted by Koelmans *et al.* in 2017, the "perceived impacts of plastic debris are mainly based on evidence of the presence of plastic, which often is framed as "huge" ... without taking into account the threshold concentration above which an effect occurs, or at least acknowledging that the actual risk is in fact indeterminate as long as environmentally realistic exposure concentrations are not compared to the effect thresholds." [7]

Despite the unrealistically high exposure concentrations employed within studies, a 2018 meta-analysis of the effects of exposure to microplastics on fish and aquatic invertebrates found that overall, exposure to microplastics leads to negative effects on consumption of aquatic organisms but demonstrated less compelling and consistent evidence that the other endpoints of growth, reproduction, or survival of aquatic organisms is negatively affected by exposure to microplastics [8].

In addition, natural particulate matter has also been demonstrated to cause adverse effects in organisms [5, 9]. When reporting on effects caused by microplastic particles, many studies fail to indicate natural particles as positive controls [10, 11]. Indeed, in studies where the natural habitat was considered in the test design the effects are frequently not significant, either observed at unrealistically high concentrations or could not be attributed to the presence of microparticles alone [12, 13].

Questions have been raised in the literature regarding whether microplastics may serve as vectors which exacerbate the uptake of adsorbed pollutants by aquatic organisms. Several review papers investigating this topic have concluded that the available evidence does not support the theory that microplastics increase the body burden of pollutants relative to normal dietary intake or other exposure [14, 15]. In some cases, greater pollutant transfer has been observed from natural materials than from microplastics [16, 17].

Potential risks to human health from microplastic within the aquatic environment have not been established. Currently, no information exists to determine either the uptake or biological effects in humans of microplastics from the aquatic environment [15, 18].

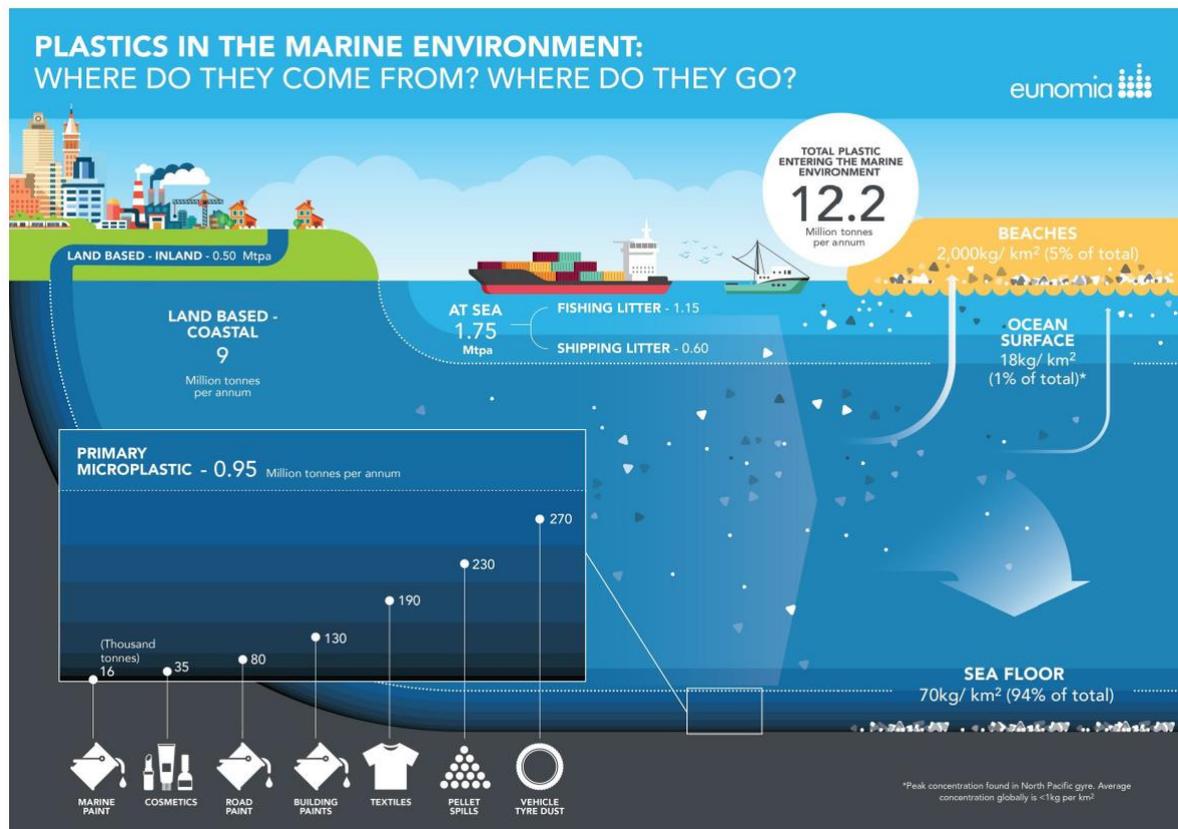
Despite the lack of available evidence, it has been noted that “the potential human health risks of microplastics in food products and beverages are often exaggerated, even in the scientific literature (Koelmans *et al.*, 2017), not surprisingly leading to strong reactions in public media”. [20]

In summary, microplastics are a key part of the serious problem of plastic pollution and are present in marine and freshwater environments globally. Regarding impacts on environmental and human health, the concentrations of microplastics required to cause adverse effects in biota are typically several orders of magnitude greater than measured environmental concentrations. The consequence is that physical effects observed in published studies are frequently environmentally irrelevant. In addition, several review papers have concluded that available evidence does not support the theory that microplastics increase the exposure of wildlife to harmful pollutants. Further research is required to determine whether microplastics from the aquatic environment can be consumed by humans through the food chain and if so, whether this engenders risk to human health.

What are the main sources of microplastic pollution, including microfibres?

CTPA is unable to provide information on the sources of microplastic pollution for Wales’ aquatic environment owing to a lack of published literature concerning Wales specifically.

Several source attribution exercises have been conducted to estimate the relative contribution of different sources to the total aquatic microplastic litter. The following infographic (Eunomia 2016) displays a breakdown of primary microplastic sources [20].

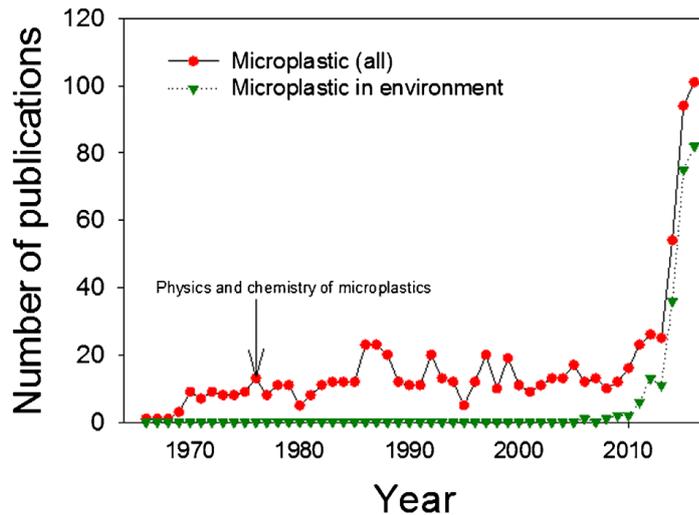


These sources only concern plastics which enter the marine environment as microplastics; primary microplastics. Secondary microplastics are generated through the breakdown of larger plastic items.

Although the relative contribution from primary and secondary microplastics to the total aquatic microplastic litter has not been quantified, it is thought that the majority of microplastics in the aquatic environment are secondary microplastics [21, 22, 23].

**How comprehensive is our knowledge about the scale of microplastic pollution and its effects?
What should the research priorities be?**

The number of papers published concerning the topic of microplastics in the marine environment has increased exponentially in recent years, as illustrated by the figure below [6]



The broad range of microplastic particle sizes, composition and morphology, the variety of adverse effect endpoints and the lack of standardised detection and characterisation methods are just a few of the variables which contribute to the complexity of this topic. As such, despite the volume of publications, there are evidence gaps which require further investigation in order to develop scientific and risk-based policy measures which will effectively address the issue of microplastics in the aquatic environment.

As noted in the Initial Statement by the European Commission’s Chief Scientific Advisors, further studies on the effects of microplastics on biota at environmentally relevant concentrations [3] is a research priority. In addition, exposure modelling, taking into account state-of-the-science modelling tools, would need to be conducted.

Further investigation into the uptake or biological effects in humans of microplastics from the aquatic environment has been stated as a research priority [15, 18].

It has been commented that more detailed understanding of the production, distribution, consumption, disposal, and leakage into the aquatic environment of both primary and secondary microplastics, will be important to develop targeted risk management strategies [24].

What is currently being done to minimise the release of microplastics into the environment? What more can be done, and by whom, to address this issue within Wales?

Despite the very minor contribution from the cosmetics industry to the overall microplastic load in the aquatic environment, as an environmentally responsible industry, the UK cosmetics industry has been acting voluntarily to remove plastic microbeads from products as part of a Europe-wide initiative launched in October 2015, and was therefore prepared for the implementation of the legislation in Wales and the rest of the UK.

The Recommendation from Cosmetics Europe, the European Personal Care Association, was to discontinue, by 2020, the use of synthetic, solid, plastic particles (plastic microbeads) used for exfoliating and cleansing, that are non-biodegradable in the aquatic environment; this was despite the extremely small role plastic microbeads play in the total microplastic litter.

A Cosmetics Europe survey, conducted in 2018, and covering use from 2012 until 2017, assessed the effectiveness of these industry voluntary actions, which showed a decrease of 97.6% in the use of plastic microbeads across Europe.

In the UK we now have in place a ban on solid plastic microbeads in rinse-off cosmetic and personal care products, which is the strongest anywhere in the world. The law came fully into effect in England and Scotland on 19 June this year and in Wales on 30 June. We understand Northern Ireland will be implementing the ban this month. CTPA absolutely supports the ban as it is based on sound science and prohibits ingredients where they may reach the marine environment.

Regarding the release of microplastics into the aquatic environment from land-based water sources, in North America, Europe and Australia, releases are generally subject to waste water treatment via wastewater treatment plants (WWTPs), in which particles are removed via a physicochemical process with a high degree of efficiency. For example, an extensive study on 10 waste water treatment plants conducted by the Danish Environmental Protection Agency covering the 26% of the Danish wastewaters concluded that WWTPs removed more than 99% of microplastic [25]. A study in Scotland demonstrated 98% removal [26] and the USA 99.9% removal [27].

Further investigation into release of microplastics in the aquatic environment from other sources; for example, run-off from land-based sources, has been recommended [28, 29]. In addition, the of breakdown of larger plastics in the aquatic environment into secondary microplastics constitutes a major source of microplastics and the rate of breakdown and therefore rate of generation of microplastics from this source has not been extensively studied [21, 29].

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