

An EU ban on microplastics in cosmetic products and the right to regulate

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Abstract

In January 2018, the European Commission initiated a restriction procedure on microplastics in cosmetic products. This article deals with the legal implications of a European Union (EU) restriction under the Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) in relation to the right to regulate in the EU and in the context of the World Trade Organization (WTO). The article argues that in the aftermath of harmonization, the legal scope for EU Member States is dependent on the definition that will be adopted as regards microplastics under REACH: the wider the scope of the restriction, the more probable it is that Member States' action is restrained. In the context of WTO rules, similar considerations apply as regards the scope of the definition: the wider the scope of an EU ban, the more demanding it will be to satisfy the requirements under the Agreement on Technical Barriers to Trade. Providing scientific evidence is instrumental, as there is little room for the precautionary principle in both regimes.

1 | INTRODUCTION

In line with the European Union (EU) Plastics Strategy published in January 2018, the European Commission has requested the European Chemical Agency (ECHA) to prepare a dossier for restricting microplastics in certain products. According to the Court of the European Free Trade Association (EFTA) in *EFTA Surveillance Authority v Kingdom of Norway*,¹ the Commission has to start this procedure in case of a national measure restricting the use and placing on the market of chemical substances by a Member State. Following its notification in November 2016, France has, as the first EU Member State, implemented a restriction on the use of microplastics in certain cosmetic and personal care products, the so-called rinse-off products for exfoliation or cleansing. The French ban was communicated to the Commission according to Directive 2015/1535, which requires EU Member States to notify 'any draft technical regulation'

in order to assess the effects of the proposed regulation on the market.² France also notified the World Trade Organization (WTO) according to Article 10(6) of the Agreement on Technical Barriers to Trade (TBT Agreement).³ In both notifications, the ban on microplastics in rinse-off cosmetic products – products that are rinsed off immediately after use – was justified with a reference to international and European obligations regarding the status of the marine environment. Other Member States have announced similar legislation. Furthermore, non-EU Member States, such as the United States, Canada, South Korea and New Zealand, have either notified or have already in force regulations which ban certain microplastics in certain cosmetic products.

In this article, we discuss the issues that may arise as a result of these national bans and a possible EU ban on microplastics with

¹Case E-9/16, *EFTA Surveillance Authority v Kingdom of Norway* (EFTA Court, 14 July 2017).

²Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services [2015] OJ L241/1 art 5.

³Agreement on Technical Barriers to Trade (adopted 15 April 1994, entered into force 1 January 1995) 1868 UNTS 120 (TBT Agreement).

respect to the right to regulate. Technical regulations may be inconsistent with the principle of free movement of goods within the EU as well with respect to the WTO obligations on international trade. In the absence of an international environmental agreement on plastic pollution, and in particular on microplastics, countries turn to unilateral measures, even though this kind of pollution may only be effectively tackled on a global scale.⁴ We are well aware of the fact that intentionally added microplastics are only a fraction of the problem of (micro)plastic pollution. Nevertheless, we will limit our research to the restriction of microplastics in cosmetic products, as one of the most frequently adopted regulations on microplastics. Before going into the implications for the internal market and international trade law of an EU ban on microplastics, we first discuss the national bans of microplastics in cosmetic products. Different definitions of microplastics are used and restrictions apply to different categories of products. We also refer to the developments at the EU concerning the restriction dossier currently prepared by ECHA. We acknowledge that an EU-wide ban on microplastics is far from being adopted. However, the implications of the possible EU ban for Member States' regulatory autonomy in the future should be analysed given that the scientific knowledge on microplastics is still developing and further regulatory measures may be needed.

We then deal with the legal implications in relation to the internal market of the EU. The restriction dossier has to be compiled according to Article 69(1) of the Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH),⁵ and requires a comprehensive assessment of the scientific evidence for regulating microplastics at the EU level. REACH aims at complete harmonization, and Article 128 of REACH gives to the Member States and EFTA Member States the right to regulate substances where requirements have not yet been harmonized under the REACH restrictions procedure. But after harmonization Member States have limited space to prohibit or restrict the use of a substance in a product regulated by REACH and in the EU in general. A similar provision can also be found in the Cosmetics Regulation under Article 9.⁶ However, since the Cosmetics Regulation does not apply to restrictions for environmental reasons, the article concentrates on REACH only. Questions may arise in case different definitions of microplastics are used and when restrictions are placed on different categories of cosmetic products. Would a Member State still be able to ban microplastics in leave-on products if a European ban is limited to rinse-off products?

The last section explores the right to regulate in relation to WTO law, in particular the TBT Agreement. WTO case law has, in several decisions, stipulated the right to regulate, which should be balanced with the objective of trade liberalization. Would a European ban on microplastics stand the test under the TBT Agreement if challenged? We evaluate the requirements for a WTO-compliant technical measure, in particular with an EU ban on microplastics in mind.

2 | NATIONAL BANS ON MICROPLASTICS IN COSMETIC PRODUCTS

The existence of microplastics was first described in the journal *Science* in 2004, revealing that microscopic plastic fragments were widespread and increasing in the marine environment.⁷ In the years since, scientists published an abundance of evidence regarding microplastics, from measuring the presence and quantity to the ingestion of microplastics by animals and presence in food chains.⁸ Intentionally added microplastics, in particular those in rinse-off products, are generally discharged in wastewater streams, in most parts of the world directly into surface water, but also after treatment in wastewater facilities.⁹ The release of intentionally added microplastics in cosmetic products in the environment is most effectively prevented by banning them from these products.¹⁰

Table 1 outlines the initiatives countries have taken so far. In 2015, the first national regulation on microplastic pollution was adopted. Following legislative initiatives in several states,¹¹ the US Microbead-free Waters Act of 2015 prohibits the manufacture and sale of rinse-off cosmetic products that contain 'microbeads'.¹² A microbead is defined as 'any solid plastic particle that is less than five millimetres in size and is intended to be used to exfoliate or cleanse the human body or any part thereof'.¹³ The Act also provides that further regulation of microbeads in rinse-off cosmetic products by federal states is not permitted and should be revoked if already in place. In this regulation, the distinction between rinse-off and leave-on products was introduced, suggesting that primarily rinse-off products would lead to disposal in waterways.¹⁴

⁷RC Thompson et al, 'Lost at Sea: Where Is All the Plastic?' (2004) 304 *Science* 838, 838.

⁸For an overview, see AL Andrad, 'The Plastic in Microplastics: A Review' (2017) 119 *Marine Pollution Bulletin* 12.

⁹HA Leslie, 'Review of Microplastics in Cosmetics' (Institute for Environmental Studies, Vrije Universiteit Amsterdam 2014) 21, 27.

¹⁰CM Rochman et al, 'Plastic Debris and Policy: Using Current Scientific Understanding to Invoke Positive Change' (2016) 35 *Environmental Toxicology and Chemistry* 1619, 1623.

¹¹Illinois, Colorado, Maine, New Jersey, Wisconsin, Indiana, Maryland, Connecticut, California and New York passed legislation at the state level. See D Xanthos and TR Walker, 'International Policies to Reduce Plastic Marine Pollution from Single-use Plastics (Plastic Bags and Microbeads): A Review' (2017) 118 *Marine Pollution Bulletin* 17, 23; JP McDevitt et al, 'Addressing the Issue of Microplastics in the Wake of the Microbead-free Waters Act – A New Standard Can Facilitate Improved Policy' (2017) 51 *Environmental Science and Technology* 6611, 6613.

¹²Section 2(a) Microbead-free Waters Act of 2015.

¹³*ibid*.

¹⁴Committee Report, H. Rept. 114–371 – Microbead-free Waters Act of 2015 (7 December 2015).

⁴See on the issue of unilateral trade measures, jurisdiction and extraterritoriality: H Horn and PC Mavroidis, 'The Permissible Reach of National Environmental Policies' (2008) 42 *Journal of World Trade* 1107; B Cooreman, *Global Environmental Protection through Trade: A Systematic Approach to Extraterritoriality* (Edward Elgar 2017).

⁵Regulation (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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC [2006] OJ L396/1 (REACH).

⁶Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on Cosmetic Products [2009] OJ L342/59.

TABLE 1 National regulation on microplastics, in force or notified

Country	WTO notification	EU notification	Product category	Definition of microplastics
United States – Microbead-free Waters Act of 2015 (in force)	–	–	Rinse-off cosmetic products	Microbead: any solid plastic particle that is less than 5 mm in size and is intended to be used to exfoliate or cleanse the human body or any part thereof
South Korea – Proposed amendments to the 'Regulation on Safety Standards etc. of Cosmetics'	G/TBT/N/KOR/672 G/TBT/N/KOR/706	–	Cleansing products, dental cleansing products	Microbead: less than or equal to 5 mm in size
Taiwan – Restrictions on the Manufacture, Import, and Sale of Personal Care and Cosmetics Products Containing Plastic Microbeads (in force)	G/TBT/N/TPKM/249	–	Cosmetics used for washing hair, bathing, face-washing and soap; toothpaste	Microbead: solid plastic particles used for exfoliation or cleaning of the body wherein the scope of particles' diameter is smaller than 5 mm
Canada – Microbeads in Toiletries Regulations (in force)	G/TBT/N/CAN/501	–	Toiletries, meaning any personal hair, skin, teeth or mouth care products for cleansing or hygiene, including exfoliants	Microbead: plastic microbeads that are ≤ 5 mm in size, any plastic particle, including different forms such as solid, hollow, amorphous and solubilized
France – Decree prohibiting the placing on the market of rinse-off cosmetic products for exfoliation or cleansing that contain solid plastic particles (in force)	G/TBT/N/FRA/170	2016/543/F	Rinse-off cosmetic products for exfoliation or cleansing	Solid plastic particles, with the exception of particles of natural origin not liable to persist in, or release active chemical or biological ingredients into the environment or to affect animal food chains
New Zealand – Waste Minimization (Microbeads) Regulations 2017	G/TBT/N/NZL/77	–	Wash-down cosmetic products; cleaning products	Microbead: a water-insoluble plastic particle that is less than 5 mm at its widest point
Sweden – Draft Regulation prohibiting the placing on the market of rinse-off cosmetics that contain solid plastic particles which have been added for exfoliating, cleaning or polishing purposes	G/TBT/N/SWE/132	2017/284/S	Rinse-off cosmetic products	Solid particles of plastic which are 5 mm or less in size in any dimension and which are insoluble in water
United Kingdom – The Environmental Protection (Microbeads) Regulations 2017/2018 (England, Wales, Scotland, Northern Ireland)	G/TBT/GBR/28 G/TBT/GBR/29 G/TBT/GBR/30 G/TBT/GBR/32	2017/353/UK 2018/42/UK 2018/48/UK 2018/208/UK	Rinse-off personal care products	Microbead: any water-insoluble solid plastic particle of less than or equal to 5 mm in any dimension
Belgium – Draft Sector Agreement to support the replacement of microplastics in consumer products	–	2017/465/B	Not settled	
Italy – Draft technical regulation banning the marketing of non-biodegradable and non-compostable cotton buds and exfoliating rinse-off cosmetic products or detergents containing microplastics	G/TBT/N/ITA/33	2018/258/I	Exfoliating rinse-off cosmetic products and detergents	Water insoluble solid plastic particles of 5 mm or less, referring to definition in Commission Decision (EU) 2017/1217 of 23 June 2017

South Korea was the first country to notify the WTO of its proposed prohibition of microbeads in cosmetic products. In the notification database on technical barriers, South Korea announced a ban on microbeads in rinse-off products in October 2016 and in toothpaste in February 2017.¹⁵ Taiwan followed with notification for new legislation with a reference to the US Microbead-free Waters Act, using more or less the same definitions.¹⁶

Canada notified the WTO regarding the proposed Microbeads in Toiletries Regulations covering products for cleansing or hygiene and defines microbeads as 'plastic microbeads that are ≤ 5 mm in size'.¹⁷ Different forms of particles are included, such as solid, hollow, amorphous and solubilized, as well as different functions. Microbeads are distinguished from secondary microplastics, as being manufactured for a specific purpose and application. This definition diverges from commonly used definitions, which describe microbeads often as solid particles with the function of exfoliating and cleansing. The Canadian ban puts microbeads on the list of toxic substances of the Canadian Environmental Protection Act, 1999,¹⁸ and prohibits the adding of microbeads in toiletries, for cleansing or hygiene, limiting them, effectively, to rinse-off products.

The first EU Member State to adopt a ban was France, which banned the sale of rinse-off cosmetic products for exfoliation or cleaning that contain solid plastic particles.¹⁹ The ban excludes particles from a natural origin providing that they are not persistent and that they do not affect the food chain. The French ban does not specify the size of the particles resulting in all solid plastic particles being banned, also those larger than 5 mm. The ban was notified both to the Commission, under the 2015/1535 notification procedure,²⁰ and to the WTO.²¹

Sweden has also announced a ban prohibiting rinse-off cosmetic products that contain plastic particles which have been added for

exfoliating, cleaning and polishing purposes.²² Plastic particles are defined as solid particles of plastic which are 5 mm or less in size and insoluble in water.²³ The Swedish notification refers explicitly to the US and French regulations and it seems that Sweden has attempted to follow the definition in these regulations.

New Zealand notified the WTO in March 2017 of its proposed ban on microbeads in 'wash-down' cosmetic products.²⁴ In October 2017, New Zealand announced that the proposed ban will be extended to include cleaning products, such as household, car and industrial cleaning products.²⁵ A microbead is defined as 'a water-insoluble plastic particle that is less than 5 mm at its widest point',²⁶ thereby tying in with the regulation in the United States and Canada.²⁷ However, the extension to other, non-cosmetic, wash-off products is novel.

The United Kingdom has announced four legislative proposals, for England, Wales, Scotland and Northern Ireland. The Environmental Protection (Microbeads) Regulations 2017 are proposed under the Environmental Protection Act 1990 and follow the US regulation, both regarding the definition of microplastics and concerning the category of products.

Belgium has notified a voluntary sector agreement to phase out microplastics, initially from rinse-off cosmetic products, and gradually from cleaning and maintenance products.²⁸

The latest notification came from Italy, proposing to phase out microplastics in exfoliating rinse-off cosmetic products and detergents by January 2020.²⁹

As an EU restriction on microplastics is being prepared by the ECHA, and expected to be published in January 2019, we can only speculate on the definition of microplastics. ECHA has adopted a working definition, reading 'any polymer-containing solid or semi-solid particle having a size of 5 mm or less in at least one external dimension', though acknowledging that this definition is likely to evolve.³⁰

Although most legislation adheres to the definition that was adopted by the United States – any solid plastic particle that is less than

¹⁵Committee on Technical Barriers to Trade, 'Notification G/TBT/N/KOR/672' (6 October 2016) and 'Notification G/TBT/N/KOR/706' (1 February 2017).

¹⁶Committee on Technical Barriers to Trade, 'Notification G/TBT/N/TPKM/249' (14 October 2016), attachment for English text of legislation: <https://members.wto.org/crnattachments/2016/TBT/TPKM/16_4322_00_e.pdf>.

¹⁷Microbeads in Toiletries Regulations SOR/2017-111, amending the Canadian Environmental Protection Act, 1999 (1 January 2018) <<http://laws-lois.justice.gc.ca/eng/regulations/SOR-2017-111/index.html>>.

¹⁸Section 64, on Toxic substances, of the Canadian Environmental Protection Act, 1999, reads: 'For the purposes of this Part and Part 6, except where the expression "inherently toxic" appears, a substance is toxic if it is entering or may enter the environment in a quantity or concentration or under conditions that:

(a) have or may have an immediate or long-term harmful effect on the environment or its biological diversity;

(b) constitute or may constitute a danger to the environment on which life depends; or

(c) constitute or may constitute a danger in Canada to human life or health.'

Toxic substances are listed in Schedule 1 of the Act.

¹⁹Loi n° 2016-1087 du 8 août 2016 pour la reconquête de la biodiversité, de la nature et des paysages, TA n° 803 <<http://www.assemblee-nationale.fr/14/dossiers/biodiversite.asp>>.

²⁰Council Directive (EEC) 83/189 of 28 March 1983 laying down a procedure for the provision of information in the field of technical standards and regulations [1983] OJ L109/8; Technical Regulation Information System, 'Notification Number 2016/543/F' (12 October 2016) <https://ec.europa.eu/growth/single-market/barriers-to-trade/tris_en>.

²¹Committee on Technical Barriers to Trade, 'Notification G/TBT/N/FRA/170' (30 November 2016).

²²Committee on Technical Barriers to Trade, 'Notification G/TBT/N/SWE/132' (6 July 2017); Technical Regulation Information System, 'Notification Number 2017/284/S' (30 June 2017) <https://ec.europa.eu/growth/single-market/barriers-to-trade/tris_en>.

²³Förordning (1998:944) om förbud m.m. i vissa fall i samband med hantering, införsel och utförsel av kemiska produkter, Svensk författningssamling 1998:944 <https://www.riksdage.n.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/forordning-1998944-om-forbud-mm-i-vissa-fall_sfs-1998-944>.

²⁴Committee on Technical Barriers to Trade, 'Notification G/TBT/N/NZL/77' (8 March 2017).

²⁵Committee on Technical Barriers to Trade, 'Notification G/TBT/N/NZL/77/Add.1' (9 October 2017).

²⁶Waste Minimisation (Microbeads) Regulations 2017, Order in Council (4 December 2017) <<http://www.legislation.govt.nz>>.

²⁷Ministry for the Environment, 'Cabinet Paper: Prohibiting the Sale and Manufacture of Wash Off Products Containing Plastic Microbeads' (August 2017) <<http://www.mfe.govt.nz/node/23631>>.

²⁸Technical Regulation Information System, 'Notification Number 2017/0465/B' (2 October 2017) <https://ec.europa.eu/growth/single-market/barriers-to-trade/tris_en>.

²⁹Committee on Technical Barriers to Trade, 'Notification G/TBT/N/ITA/33' (22 June 2018); Technical Regulation Information System, 'Notification Number 2018/258/I' (6 June 2018) <https://ec.europa.eu/growth/single-market/barriers-to-trade/tris_en>.

³⁰ECHA, 'Call for Evidence and Information on the Intentional Uses of Microplastic Particles in Products of Any Kind: Background Note' (March 2018).

5 mm in size and is intended to be used to exfoliate or cleanse the human body or any part thereof – we can see variations. Canada explicitly includes hollow, amorphous and solubilized particles, with different functions, while France does not set a size limit. Most bans apply to rinse-off cosmetic products, but New Zealand extends the ban to cleaning products. The EU has declared that it will investigate all relevant products, including leave-on cosmetic products, such as make-up and sunscreen, and also cleaning products and products for agricultural and industrial use. In this article we will focus on microplastics in cosmetic products only. The definition of microplastics as well as the category of products is of crucial importance for determining what the level of harmonization is after the adoption of an EU ban. Would there be room for deviation, for example, by extending the definition to all synthetic polymers, solid or not? And would Member States be able to apply a restriction on leave-on cosmetic products? These kinds of issues are also relevant for the test whether the EU restriction would be in accordance with WTO law. If an EU restriction would depart from solid plastic particles and rinse-off cosmetic products, to more encompassing regulation, would it pass the test of Article 2(2) TBT Agreement?

3 | IMPLICATIONS OF AN EU BAN ON MICROPLASTICS ON THE REGULATORY AUTONOMY WITHIN THE EU

Any future EU ban on microplastics under REACH will harmonize completely the conditions of manufacture, placing on the market and use of microplastics covered by REACH.³¹ This results from the aim of the harmonization measure, namely guaranteeing undistorted trade between Member States.³² Thus, after the adoption of a final decision under Article 128(2) REACH to restrict microplastics in cosmetic products, the manufacture, placing on the market and use of microplastics in contravention to the EU harmonization measure will be prohibited.³³ This raises the question what will be the consequences of an EU-wide ban on microplastics for individual Member States. Are Belgium, France, Sweden and the United Kingdom entitled to maintain in force their current national restrictions on microplastics? Can an individual Member State prohibit microplastics in different forms, including hollow, amorphous and solubilized particles, if the EU ban covers only solid plastic particles that are 5 mm or less and water insoluble?³⁴ Or can a Member State adopt a national ban prohibiting the use of microplastics in leave-on cosmetics products if the EU ban prohibits them only in rinse-off cosmetic products? These kinds of questions are likely to arise in the future, given the fact that much knowledge on the human health and environmental impacts of microplastics is still lacking. Moreover, at least

some Member States seem to be active in regulating chemicals at the national level.³⁵ For example, it has been argued that France and Denmark are in the belief that they are still allowed to regulate chemicals if they consider the measures taken on the basis of REACH as insufficient.³⁶ Especially France seems not to limit itself to dealing with emergencies and has, for instance, adopted a mandatory nanomaterial reporting in the absence of a Union-level registration system.³⁷ In turn, the Commission and the Court have traditionally adopted a strict interpretation of derogations from the four fundamental freedoms under the EU treaties.³⁸

However, after an eventual adoption of the harmonization measure on microplastics, the Treaty on the Functioning of the European Union (TFEU)³⁹ and REACH would leave some scope for Member States' regulatory action. First, the Member States remain competent for those microplastics that are not covered by REACH. Second, Member States have the possibility to derogate from the common harmonization measure under certain specific circumstances. The applicable derogation clauses are found in Articles 114 TFEU and 129(1) REACH. In relation to these clauses, the Court has confirmed in *Lapin luonnonsuojelupiiri* that Member States are free to decide to which derogation provision they wish to resort to.⁴⁰ The following subsections consider the legal scope left for Member States' action under these derogation clauses. We start by considering the concept of harmonization, after which the possibilities for Member States to maintain in force their current national restrictions on microplastics in cosmetic products are analysed. Finally, we establish the possibilities of the Member States to lay down further restrictions on microplastics in cosmetic products in the future to enable a higher protection for the environment.

3.1 | The concept of harmonization

Before considering in more detail Member States' possibilities for derogation, we first look at the concept of 'harmonization'. This is because the scope for Member States' action is largely based on the harmonization measure adopted under REACH. In particular, two issues arise in this context: the stage at which harmonization takes place and the extent to which the manufacture, use and placing on the market of microplastics is harmonized.

The stage at which harmonization takes place affects the legality of national regulatory measures on microplastics: after harmonization has taken place, no contradictory measures may exist at the national level. In this regard, the EFTA Court in the *EFTA Surveillance Authority v Kingdom of Norway* case held that the requirements for

³¹REACH (n 5) recital 90 and arts 44, 67(1) and 128(1); see also JP Montfort et al, 'Nanomaterials under REACH: Legal Aspects' (2010) 1 European Journal of Risk Regulation 51, 60.

³²Consolidated Version of the Treaty on the European Union [2012] OJ L326/13 (TEU) art 28.

³³REACH (n 5) art 67(1) REACH; *EFTA Surveillance Authority v Kingdom of Norway* (n 1) paras 81 and 84.

³⁴See, for different definitions, Amec Foster Wheeler Environment & Infrastructure UK Limited, 'Intentionally Added Microplastics in Products: Final Report' (October 2017) 218–219.

³⁵N Herbatschek, L Bergkamp and M Mihova, 'The REACH Programmes and Procedures' in L Bergkamp (ed), *The European Union REACH Regulation for Chemicals: Law and Practice* (Oxford University Press 2013) 152.

³⁶L Bergkamp and M Penman, 'Conclusions' in Bergkamp (n 35) 422.

³⁷See <<https://www.r-nano.fr/?locale=en>>.

³⁸Case C-41/93, *France v Commission (PCP)*, ECLI:EU:C:1994:196 para 24.

³⁹Consolidated Version of the Treaty on the Functioning of the European Union [2012] OJ C326/01 (TFEU).

⁴⁰Case C-358/11, *Lapin luonnonsuojelupiiri*, ECLI:EU:C:2013:142 para 37.

manufacture, placing on the market or use mentioned in Article 128(2) REACH are harmonized only when a final decision to restrict the substance has been issued under Article 68 REACH.⁴¹ Thus, the current national restrictions on microplastics are in line with REACH, although they remain subject to the fundamental freedoms provisions in Article 34 TFEU.

The extent to which harmonization has taken place is a more complex issue and closely related to the definition that will be adopted for microplastics by REACH. This is because the definition determines the range of substances covered by the REACH prohibition and, accordingly, the 'scope' of the prohibition. For example, the scope of a prohibition covering only solid microplastics is narrower than the scope of a prohibition covering also those that are water soluble. The same may apply for the categories to which the restriction pertains. In our opinion, the scope of harmonization will also depend on the decisions that have been made during the restriction procedure. If a form of microplastic or a certain category of products has explicitly been excluded from restriction during the procedure, we may assume that harmonization has taken place for these forms of microplastics and categories of products. Since ECHA has announced it will investigate all forms of microplastics and all products with intentionally added microplastics, an explicit decision can be expected. We can imagine that the underlying reasoning of exclusion of forms of microplastics or certain products from the restriction might also affect the scope of harmonization.

3.2 | Member States' right to maintain in force their current restrictions

In the aftermath of harmonization, Member States are under the duty to determine whether their national measures are compliant with the possible future REACH ban on microplastics.⁴² The consequences for the Member States having in force restrictions on the manufacture, use and placing on the market of microplastics in cosmetic products will depend on whether the national measure falls within the scope of the EU ban on microplastics. Of course, issues only arise when restrictions diverge.

A national ban will be absorbed in case the national measure falls within the EU restriction and the EU ban is wider than the national measure. This would be the situation for most national bans, if an EU ban restricts also other forms of microplastics than solid ones or if an EU ban restricts also detergents and leave-on cosmetic products and not only those that are rinsed off. In those situations, the EU ban would be wider than the national bans and, for that reason, the national regulations will be replaced by the EU ban.

If a Member State comes to the conclusion that the national measure does not fall within the scope of the harmonization, the Member State in question is entitled to maintain in force its restriction on microplastics. This is outlined by Article 128(2) REACH, which provides that Member States may maintain in force and introduce

national rules to protect workers, health and the environment in cases where REACH does not harmonize the requirements on the manufacture, placing on the market or the use. In this case, the scope of harmonization becomes essential. If an EU ban limits the restriction on microplastics to only solid plastic particles used to exfoliate or cleanse in rinse-off cosmetic products, would all other microplastics and products that do not fall under the restriction be harmonized? While we cannot predict the outcome of the restriction procedure, we presume it is essential that a restriction measure on microplastics should explicitly determine which microplastics and products it intends to harmonize and thus should define the scope of harmonization.

If we, however, assume that the EU ban does harmonize the regulation on all microplastics, issues may arise when national regulation is more stringent. In that situation, a Member State may be entitled to rely on Article 114(4) TFEU, which gives the Member State the possibility to maintain in force its current national provisions on the grounds of environmental protection. The Court has, so far, adopted a soft approach with regard to the conditions for measures taken prior to harmonization and held that Article 114(4) TFEU does not entail 'a requirement that the applicant Member State prove that maintaining the national provisions which it notifies to the [C]ommission is justified by a problem specific to that Member State'.⁴³ However, at the same time the Court has held that although a Member State is explicitly required to put forward scientific evidence only in case of Article 114(5) TFEU, similar considerations apply also in case of Article 114(4) TFEU.⁴⁴ In case of notifications made under Article 114(4) TFEU, the Court has, nevertheless, again taken a lenient approach so that Member States are allowed to apply for a derogation on the basis of different standards than those adopted at the Union level.⁴⁵ Therefore, on the basis of the Commission decisions and case law it seems that the current Member States having in place restrictions on microplastics have a reasonable probability of success in notifying more far-reaching restrictions under Article 114(4) TFEU. This conclusion finds support from the statistics: in the period between 1987 and 2014, there were 22 requests under Article 114(4) TFEU of which the Commission approved 16.⁴⁶ Of the remaining requests, four were rejected, one was declared inadmissible and one was withdrawn.⁴⁷

3.3 | Member States' right to regulate after the adoption of an EU ban

3.3.1 | The safeguard clause under REACH

The first possibility for a Member State desiring to provide a higher level of protection for the environment in case of microplastics is to

⁴³Case C-3/00, *Denmark v Commission (Danish Additives)*, ECLI:EU:C:2003:167 para 59.

⁴⁴*ibid* para 62.

⁴⁵*ibid* para 63; see I Maletic, *The Law and Policy of Harmonisation in Europe's Internal Market* (Edward Elgar 2013) 115.

⁴⁶E Vos and M Weimer, 'Differentiated Integration or Uniform Regime? National Derogations from EU Internal Market Measures' in B de Witte et al (eds), *Between Flexibility and Disintegration: The Trajectory of Differentiation in EU Law* (Edward Elgar 2017) 312.

⁴⁷*ibid*.

⁴¹EFTA Surveillance Authority v Kingdom of Norway (n 1) para 84.

⁴²Case 7-234/04, *Commission v the Netherlands*, ECLI:EU:C:2007:335 para 60.

rely on Article 129(1) REACH. This provision requires that the purpose of the measure is to respond to an urgent situation to protect human health or the environment. To act, a Member State is required to inform the Commission, ECHA and the other Member States, and give reasons for its decision in addition to submitting the scientific or technical information on which the measure is based.

Regarding the practical possibilities of success under Article 129(1) REACH, so far, only one application for a derogation under the safeguard clause of Article 129(1) REACH has been put forward. In August 2013, France applied for a derogation on the basis that it considered that there were justifiable grounds for urgent action to protect the public from exposure to ammonia that was released from ammonium salts contained in cellulose wadding insulation materials used in buildings.⁴⁸ The Commission authorized France to ban those materials until July 2015, when the ban was replaced by an EU-wide prohibition.⁴⁹ The Commission based its decision predominantly on the information that was submitted by France and conducted only a brief consultation with other Member States and stakeholders about the matter.⁵⁰ It accepted as evidence of a risk to human health the registered incidents by the national poison centres, complaints that were submitted by the professional association of producers of cellulose wadding insulation and the concentration measurements of the French authorities. According to the Commission, the measurements proved that the levels of exposure exceeded the reference toxicological values for safe long-term exposure.⁵¹ Regarding the condition of urgency, the Commission considered that the interests of protecting human health at a high level and achieving fast harmonization of the internal market made the situation urgent.⁵²

Although it seems that a lenient approach was applied by the Commission as regards the request for derogation, it has to be noted that several people were already intoxicated since November 2011 and about 150 complaints had been brought by professional associations.⁵³ Consequently, special circumstances were present, and it can be argued that it would have been irresponsible on the part of the Commission not to accept the application for a derogation given that the adverse effects on human health had already materialized on various occasions. Accordingly, more cases are needed in order to draw conclusions on Member States' likelihood of success in the case of microplastics under Article 129(1) REACH. We can conclude, however, that if serious human health impacts come into effect, Article 129(1) REACH can be successfully invoked. Whether this also

applies to serious environmental effects caused by microplastics remains to be seen.⁵⁴

Also, although there exists a possibility for derogation under REACH, the probability that a Member State will in fact engage in such an action seems small. This is because of the requirement that a Member State must produce a restriction dossier.⁵⁵ Statistics demonstrate that the efforts by Member States to produce those dossiers have been very disparate: for instance, in the period between 2009 and 2017 only 18 restriction dossiers were submitted by Member States; in 2017, only one new dossier was received from a Member State.⁵⁶ Accordingly, Member States' restriction activity has remained very low. Difficulty in nominating 'suitable' substances for restriction, the complexity of the restriction dossier and the substantial resources and staff needed accordingly are mentioned as reasons.⁵⁷ Consequently, the compiling of a restriction dossier might prevent Member States from resorting to Article 129(1) REACH also in the case of microplastics due to the complexity of the substance and multiplicity of uses.

3.3.2 | Derogating on the basis of Article 114(5) TFEU

The second possibility for Member States is to rely on the derogation mechanism in the harmonization provision in Article 114 TFEU, formerly Article 95 of the Treaty establishing the European Community (EC Treaty).⁵⁸ Under Article 114(5) TFEU, a Member State must fulfil the following four cumulative conditions:⁵⁹ first, there has to be new scientific evidence; second, that evidence must relate to the protection of the environment; third, the action must be taken on the grounds of a problem specific to the notifying Member State; and, fourth, the problem must arise after the adoption of the harmonization measure.⁶⁰ Accordingly, there are more conditions to be fulfilled by Member States under Article 114(5) TFEU than under Articles 114(4) TFEU and 129(1) REACH. In addition to the strict wording of the Article 114(5) TFEU conditions, we discuss three different factors in the analysis of the Commission decisions and in the case law that render it difficult for Member States to meet the conditions of Article 114(5) TFEU.

⁵⁴As Rochman and colleagues point out, knowledge in the field of microplastics is 'arguably still in its infancy, and more science ... is crucial'. Rochman et al (n 10) 1624.

⁵⁵REACH (n 5) art 129(3).

⁵⁶ECHA, 'General Report 2017' (April 2018) 56 <https://echa.europa.eu/documents/10162/3048539/FINAL_MB_03_2018_%282%29_General_Report_2017_MB49.pdf/d6c665cc-8c84-d33f-2f82-fa148e366f5d>.

⁵⁷S Vaughan, *EU Chemicals Regulation: New Governance, Hybridity and REACH* (Edward Elgar 2015) 193; ECHA, 'Report on the Operation of REACH and CLP 2016' (May 2016) 108.

⁵⁸Treaty Establishing the European Community [2002] OJ C352/33.

⁵⁹Case C-512/99, *Commission v Germany (Man-made Mineral Fibres)*, ECLI:EU:C:2003:40 para 81.

⁶⁰See Commission Decision 2008/62/EC relating to Articles 111 and 172 of the Polish Draft Act on Genetically Modified Organisms, notified by the Republic of Poland pursuant to Article 95(5) of the EC Treaty as derogations from the provisions of Directive 2001/18/EC of the European Parliament and of the Council on the deliberate release into the environment of genetically modified organisms [2008] OJ L16/17 para 45.

⁴⁸Commission implementing decision of 14 October 2013 authorising the provisional measure taken by the French Republic in accordance with Article 129 of Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) to restrict the use of ammonium salts in cellulose wadding insulation materials [2013] OJ L275/52 para 1.

⁴⁹Commission Regulation (EU) 2016/1017 of 23 June 2016 amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Restriction, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards inorganic ammonium salts [2016] OJ L166/1.

⁵⁰Commission implementing decision of 14 October 2013 (n 48).

⁵¹*ibid* para 7.

⁵²*ibid* para 8.

⁵³*ibid* para 7.

The first factor having an impact on the scope for action of the Member States under Article 114 TFEU is the restrictive interpretation by the Commission and the Court of the requirement of new scientific evidence. A prime example is provided for by the *Germany Organostannics* case when Germany claimed that the pollution levels were higher than what earlier research had proved.⁶¹ However, according to the Commission this constituted already existing information as the studies were already available at the time the Directive was being prepared.⁶² On the basis of the Commission decision it has been argued that the Commission requires there to be evidence of new problems or of the fact that the problem was of a different order than what the earlier studies had indicated.⁶³ Thus, in the case of microplastics, Member States should bring forward evidence of new problems caused by microplastics or evidence that the environmental impact of microplastics has a different magnitude than what studies established at the time the regulation was adopted. Moreover, the Court has confirmed in *Land Oberösterreich and Austria* that the Commission has discretion when it chooses the experts to evaluate whether the condition of new scientific evidence has been met.⁶⁴ In this regard, the Court has approved the practice by the Commission to reject a request when a scientific body has come to the conclusion that a report produced by a Member State does not contain 'unusual or unique ecosystems'.⁶⁵ Due to this confirmation, it will be challenging for Member States to fulfil the requirement of new scientific evidence under Article 114(5) TFEU in the case of microplastics. This is particularly so where the evidence put forward by the Member State conflicts with the opinion of the EU committee or agency.⁶⁶

What is more, the precautionary principle, which is closely linked to the assessment of new evidence and new situation under Article 114(5) TFEU, seems to be of little help for Member States: there has been a strict insistence on the fulfilment of the conditions for derogation.⁶⁷ In this regard, both the Commission and the Court are of the opinion that despite the relevance of the principle in assessing new evidence, both the problem and evidence must be new before the principle comes into play.⁶⁸ This means that it is likely that a Member State will not succeed in relying on the principle in the

context of microplastics when it comes to the conditions of new scientific evidence and new problem.

The second factor affecting the Member State's legal scope is the interpretation by the Commission and the Court of the requirement that a problem is specific to the applicant Member State and arises after the adoption of the harmonization measure. The issue raising concern here is that the stance adopted in relation to the condition implies an onerous burden on Member States. In order to meet the condition, the mere desire to protect the environment is not enough: the notifying Member State must be able to demonstrate that the problem is specific for the Member State concerned due to, for example, the high population density of the Member State or its geological circumstances.⁶⁹ However, it is still unclear what the comparative standard is. At least the Commission seems to have adopted the standard which requires scientific data on, for instance, 'for the Member State compared with data for other Member States or a Community average'.⁷⁰ The Commission has even taken a worldwide approach to the condition in some cases.⁷¹ This stance implies a very restrictive analysis. A similar line of reasoning has been adopted by the Court of First Instance in the *Dutch Emissions* case, in which it maintained that Article 95(5) EC Treaty, now Article 114(5) TFEU, 'excludes the possibility of national provisions being introduced based upon it which derogate from harmonized rules in order to deal with a general environmental danger in the Community'.⁷² Thus, the Member States are not allowed to impose more stringent measures to deal with a problem that is common for the whole Union. This conclusion raises concern especially in the context of microplastics that cause problems worldwide. Such a strict assessment may lead to the situation in which the more widespread the environmental problem is, the less likely it is that a Member State will succeed in its application for derogation.⁷³ From the point of view of environmental protection, this kind of result may run counter to the aim of the Union of providing a high level of protection for the environment.⁷⁴

The final factor having a decisive influence under the notification procedure is the proportionality analysis. To this end, the notifying Member State must convince the Commission that the measure is neither a means of arbitrary discrimination nor a disguised restriction on trade between Member States, and that it does not create an obstacle to the functioning of the internal market under Article

⁶¹Commission Decision 2001/570/EC on draft national provisions notified by the Federal Republic of Germany on limitations on the marketing and use of organostannic compounds [2001] OJ L202/36 para 71.

⁶²*ibid* para 73.

⁶³MG Doherty, 'The Application of Article 95(4)–(6) of the EC Treaty: Is the Emperor Still Unclothed?' (2008) 7 Yearbook of European Environmental Law 48, 56.

⁶⁴Joined Cases T-366/03 and T-235/04, *Land Oberösterreich and Austria v Commission*, ECLI:EU:T:2005:347 para 65.

⁶⁵*ibid*.

⁶⁶See, for example, Commission Decision of 18 April 2012 extending the period referred to in Article 114(6) of the Treaty on the Functioning of the European Union in relation to national provisions concerning the maximum admissible content of cadmium in fertilisers notified by the Kingdom of Sweden pursuant to Article 114(5) of the TFEU [2012] OJ L116/29 para 52.

⁶⁷Joined Cases C-439/05 P and C-454/05 P, *Land Oberösterreich and Austria v Commission*, Opinion of AG Sharpston, ECLI:EU:C:2007:285 para 56.

⁶⁸*ibid* para 134.

⁶⁹*Land Oberösterreich and Austria v Commission* (n 64) paras 66–67; P, *Land Oberösterreich and Austria v Commission* (n 67) paras 63–64; JH Jans et al, 'Environmental Spill-overs into General Community Law' (2008) 31 Fordham International Law Journal 1360, 1371.

⁷⁰Commission (EU), 'Commission Communication Concerning Article 95 (paras 4, 5, and 6) of the Treaty Establishing the European Community' COM (2002)760 final, 23 December 2002 Annex II, 3(b).

⁷¹Commission Decision 2001/570/EC on draft national provisions notified by the Federal Republic of Germany on limitations on the marketing and use of organostannic compounds [2001] OJ L202/36 para 73.

⁷²Case T-182/06, *Netherlands v Commission*, ECLI:EU:T:2007:191 para 62.

⁷³H Sevenster, 'The Environmental Guarantee after Amsterdam: Does the Emperor Have New Clothes?' (2000) 1 Yearbook of European Environmental Law 291, 302.

⁷⁴TFEU (n 39) art 191(2).

114(6) TFEU. The judicial review is limited to verifying that the national measure is not manifestly inappropriate.⁷⁵ However, the Commission's level of scrutiny suggests a very restrictive interpretation. It seems that the Commission has a clear preference for the integrity of harmonization measures, which is confirmed by its decision in reply to the German application for a derogation on the use of azodyes.⁷⁶ The Commission noted that the new EU legislation had already taken into consideration the evidence put forward by Germany and that the legislator had made the decision to impose restrictions only where there was enough data showing the existence of risks.⁷⁷ Consequently, the German request for a measure imposing a higher level of protection was rejected and prevalence was given to the risk management choice made at the Union level.⁷⁸ This kind of preference clearly reduces the scope left for the Member States' action under the derogation clause also in the case of microplastics, as Member States' risk management choices are not seen as relevant as those made by the Union.

4 | AN EU BAN ON MICROPLASTICS AS A TECHNICAL MEASURE UNDER WTO LAW

So far, eight countries have notified the TBT Committee of the WTO regarding their legislation on microplastics in cosmetic products. There is no doubt that an EU ban must also be notified under the TBT Agreement, as all proposed restrictions under REACH are being notified.⁷⁹ REACH itself was notified in 2004 and, although many concerns were raised by non-European WTO Members, in particular regarding the registration obligation for entering the market, REACH as a regulatory framework was not challenged.⁸⁰

Restrictions under REACH could potentially conflict with WTO rules in the TBT Agreement and in the General Agreement on Tariffs and Trade 1994.⁸¹ Both documents deal with non-tariff barriers, the GATT 1994 in general, and TBT Agreement more specifically regarding technical measures.⁸² We primarily focus on consistency with the TBT Agreement as the more specific agreement, but will also address consistency with GATT 1994, if applicable.⁸³ The objectives of the WTO in general are to promote international trade by

liberalization, by means of non-discrimination rules, reduction of trade barriers, rules on unfair trade and a rule-based dispute settlement system. The TBT Agreement, more specifically, seeks to 'ensure that technical regulations ... do not create unnecessary obstacles to international trade'.⁸⁴ The WTO specifically recognizes the right to regulate. The preamble of the TBT Agreement states that 'no country should be prevented from taking measures ... for the protection of human, animal or plant life or health, of the environment ... at the levels it considers appropriate'.⁸⁵ WTO members are free to regulate as long as the measures comply with the WTO rules and, in case of a restriction under REACH, in particular with the requirements set out in the TBT Agreement.⁸⁶ This understanding is confirmed by the Appellate Body (AB) in case law, most prominently in *US – Clove Cigarettes*, in which it stated that 'the object and purpose of the TBT Agreement is to strike a balance between, on the one hand, the objective of trade liberalization and, on the other hand, Members' right to regulate'.⁸⁷

Article 2 of the TBT Agreement provides the key obligations with which a technical regulation has to comply: the non-discrimination obligation, the obligation to refrain from creating unnecessary obstacles to international trade and the obligation to base technical regulation on international standards.⁸⁸ According to Mavroidis, this process should be seen as WTO members taking 'the first steps toward "rationalizing" their regulatory interventions'.⁸⁹

In the following section, we apply these criteria to a possible EU restriction on microplastics, being aware that this assessment is highly speculative. We focus on an EU ban under REACH, though national legislation as well as voluntary standards on microplastics in cosmetics should pass the same tests. The purpose is merely to identify what concerns may arise when employing more encompassing or limited definitions of microplastics and application to other categories of cosmetic products. Case law, in particular on the TBT Agreement, provides further guidance for the test of conformity with WTO rules.

4.1 | The EU ban on microplastics as a technical regulation

In *EC – Asbestos*, the French prohibition of asbestos and products containing asbestos fibres was challenged by Canada. One of the issues was whether the prohibition qualified as a technical regulation under the TBT Agreement, and the AB referred to three essential

⁷⁵Case C-331, *Fedesa*, ECLI:EU:C:1990:391; Maletic (n 45) 172.

⁷⁶Commission Decision 2003/829 concerning national provisions on the use of azodyes notified by Germany and Article 95(4) of the EC Treaty [2003] OJ L311/46.

⁷⁷*ibid* para 41.

⁷⁸*ibid*; Vos and Weimer (n 46) 323.

⁷⁹For an overview of notifications by the EU of REACH related measures, see Technical Barriers to Trade Information Management System, search 'REACH' and 'European Union' <<http://tbtims.wto.org/en/Notifications/Search>>.

⁸⁰LA Kogan, 'REACH and International Trade Law' in Bergkamp (n 35) 314.

⁸¹General Agreement on Tariffs and Trade (adopted 15 April 1994, entered into force 1 January 1995) 1867 UNTS 187.

⁸²WTO Panel, *European Communities – Measures Affecting Asbestos and Products Containing Asbestos* (18 September 2000) WT/DS135/R para 8.16.

⁸³*ibid* para 8.17.

⁸⁴TBT Agreement (n 3) preamble.

⁸⁵*ibid*.

⁸⁶B Rigod, *Optimal Regulation and the Law of International Trade: The Interface between the Right to Regulate and WTO Law* (Cambridge University Press 2015) 156.

⁸⁷WTO AB, *United States – Measures Affecting the Production and Sale of Clove Cigarettes* (4 April 2012) WT/DS406/AB/R (US – Clove Cigarettes) para 174.

⁸⁸P Van den Bossche and W Zdouc, *The Law and Policy of the World Trade Organization: Text, Cases and Materials* (Cambridge University Press 2017) 899.

⁸⁹PC Mavroidis, *The Regulation of International Trade: The WTO Agreements on Trade in Goods* (MIT Press 2016) 378.

features of a technical regulation: reference to an identifiable product, description of product characterizations and demanding mandatory compliance.⁹⁰

Regarding an EU ban on microplastics, this issue will raise minimal debate. The national bans have been notified consistently, with the exception of the US Microbead-free Waters Act of 2015, as a technical measure, being applicable to certain cosmetic products, namely, to rinse-off products. Even if microplastics are banned as a substance in any product, rather than as an ingredient of certain products, the prohibition could be seen as a technical measure, as was confirmed by the AB in *EC – Asbestos*.⁹¹ Only if all microplastics are totally banned in their natural state – as in a plain ban – without further references to products, a situation that is highly unlikely at this stage, one could question whether the element of identifiable product would be satisfied.⁹² In that case, only the GATT 1994 provisions, in particular Article I on most-favoured-nation (MFN) treatment, Article III on national treatment, Article XI on quantitative restrictions and Article XX on general exceptions, would apply. It should be noted that even if a measure is consistent with the TBT Agreement, measures could still be inconsistent with GATT 1994. As indicated above, in this article we limit our analysis to consistency with the TBT Agreement.

Regarding the criterion of product characterization, all national bans lay down product characterizations, such as the size of the plastic particle and the function of rinse-off products. An EU ban on microplastics would, by defining microplastics and categories of products, fulfil this requirement. The third feature, mandatory compliance, is satisfied by the nature of the procedure under REACH: a restriction in the meaning of Article 67 REACH is a mandatory measure *per se*.

4.2 | Non-discrimination principles

The non-discrimination principles of national treatment and MFN treatment are included in Article 2(1) TBT Agreement, which sets out that 'in respect of technical regulations, products imported from the territory of any Member shall be accorded treatment no less favourable than that accorded to like products of national origin and to like products originating in any other country'.⁹³ Two steps can be distinguished: first, it has to be determined whether the relevant products are 'like'; and, second, if so, whether the measure treats them 'no less favourable'.⁹⁴

In *US – Clove Cigarettes*, the AB made a clear statement regarding the determination of 'likeness'. The issue at hand was whether clove and menthol cigarettes were like products, as clove cigarettes were prohibited and menthol cigarettes were not. In the panel report, likeness was determined by focusing on the objectives and purposes of the technical regulation. However, the AB chose to follow the competition-based approach, which is also used in the context of the GATT 1994 provisions. The AB stated that 'the concept of "treatment no less favourable" links the products to the marketplace, because it is only in the marketplace that it can be determined how the measure treats like imported and domestic products'.⁹⁵ The AB further referred to the considerations made in *EC – Asbestos* regarding physical characteristics and consumer preferences, including evidence relating to health risks, which was the underlying concern of the measure.⁹⁶ In *EC – Asbestos*, Canada claimed that its products with asbestos fibres should be considered as like products, though the AB found on the basis of health considerations that the physical properties of the products were very different, which would influence consumers' behaviour, and therefore products with asbestos fibres could not be seen as like.⁹⁷ The AB in *US – Clove Cigarettes* concluded that regulatory concerns underlying a measure 'may be relevant to an analysis of the "likeness" criteria under Article III:4 of the GATT 1994, as well as under Article 2.1 of the TBT Agreement, to the extent they have an impact on the competitive relationship between and among the products concerned'.⁹⁸

Applying this analysis to a possible EU ban on microplastics, we can observe several issues. While it might be true that the physical properties of products with microplastics will be different with regard to environmental impact, the competition-based approach of the AB in *US – Clove Cigarettes* will most probably lead to the finding that products with microplastics will be considered as like products. Most consumers are not aware of the presence of microplastics in cosmetic products. This is even truer for different types of microplastics in case the definition in the EU ban would diverge from more commonly used definitions.

The second step is then to assess whether the like product is treated less favourable, covering both *de jure* and *de facto* discrimination. The AB in *US – Clove Cigarettes* referred to the case law established regarding Article III(4) GATT 1994 for the interpretation of 'treatment no less favourable' in Article 2(1) TBT Agreement.⁹⁹ Also, 'the context and object and purpose of the TBT Agreement weigh in favour of interpreting the "treatment no less favourable" requirement of Article 2.1 as not prohibiting detrimental impact on imports that stems exclusively from a legitimate regulatory distinction'.¹⁰⁰ Therefore, it should be further analysed 'whether the detrimental impact on imports stems exclusively from a legitimate regulatory distinction

⁹⁰WTO AB, *European Communities – Measures Affecting Asbestos and Products Containing Asbestos* (12 March 2001) WT/DS135/AB/R (*EC – Asbestos*) para 66; M Koebele, 'Article 1 and Annex 1 TBT' in R Wolfrum, PT Stoll and A Seibert-Fohr (eds), *WTO: Technical Barriers and SPS Measures* (Martinus Nijhoff 2007) 187.

⁹¹*EC – Asbestos* (n 90) para 70.

⁹²R Howse and E Tuerk, 'The WTO Impact on Internal Regulations: A Case Study of the Canada–EC Asbestos Dispute' in G De Búrca and J Scott (eds), *The EU and the WTO: Legal and Constitutional Issues* (Hart 2001) 307.

⁹³TBT Agreement (n 3) art 2(1).

⁹⁴L Tamiotti, 'Article 2 TBT' in R Wolfrum et al (n 90) 215; Van den Bossche and Zdouc (n 88) 901.

⁹⁵*US – Clove Cigarettes* (n 87) para 111.

⁹⁶*ibid* para 118.

⁹⁷*EC – Asbestos* (n 90) paras 121–126.

⁹⁸*US – Clove Cigarettes* (n 87) para 119.

⁹⁹*ibid* para 180.

¹⁰⁰*ibid* para 181.

rather than reflecting discrimination against the group of products'.¹⁰¹ The question is whether the measure 'is designed and applied in an even-handed manner'¹⁰² and 'the particular circumstances' of the case, including the 'design architecture, revealing structure, operation, and application' of the measure, should be scrutinized.¹⁰³

Hence, it should be examined whether an EU ban would discriminate against imported products. If a detrimental impact on non-EU cosmetic products is observed, it may not be considered discriminatory if it is based on a legitimate regulatory distinction. An EU ban should therefore be designed and applied in an even-handed manner. The process of restriction under REACH may be essential in that respect. It has been observed that the approach of the Commission, such as early notification, extensive consultation, revision and negotiations, to concerns relating to the adoption of REACH, could explain the absence of challenges by non-EU WTO members.¹⁰⁴ The restriction process on microplastics includes several formal and informal consultations, open to any interested party. Restriction dossiers include numerous analyses and assessments in order to justify a restriction under REACH, which will not be different for the restriction dossier on microplastics. The process and dossier may provide the 'rationalization' for intervening with free trade and the information collected could be elemental in case the restriction would be challenged. Yet, the factual operation and application of the restriction towards imported like products remains decisive.

4.3 | The 'not more trade-restrictive than necessary' test

Article 2(2) TBT Agreement sets further conditions for WTO-consistent technical measures by requiring that these shall 'not be more trade-restrictive than necessary to fulfil a legitimate objective taking account of the risks non-fulfilment would create'.¹⁰⁵ This test is not about whether the measure is trade-restrictive or not, but about whether it is *more* trade-restrictive than necessary.¹⁰⁶

As the phrase suggests, the measure should fulfil a legitimate objective, which includes 'the protection of human health or safety, animal or plant life or health, or the environment'.¹⁰⁷ According to the AB in *EC – Seal Products*, the articulation of the objective pursued should be considered, though 'all evidence ... including "the texts of statutes, legislative history, and other evidence regarding the

structure and operation"' should be taken into account.¹⁰⁸ Furthermore, 'a Member shall not be prevented from taking measures necessary to achieve its legitimate objectives "at the levels it considers appropriate"', though the measure should also be examined as to whether it, 'as written and applied, actually contributes to the achievement of the legitimate objective pursued by the Member'.¹⁰⁹

As all evidence has to be taken into account, the question arises whether there is room for the application of the precautionary principle in case there are uncertainties or gaps in scientific evidence. The TBT Agreement does not explicitly mention the precautionary principle, or a situation of insufficient evidence, like the Agreement on Sanitary and Phytosanitary Measures (SPS Agreement) does.¹¹⁰ In *EC – Hormones* the AB concluded that although there might be some relationship between the precautionary principle and the SPS Agreement, it cannot override its provisions.¹¹¹ While the precautionary principle has not been addressed by a panel or the AB in relation to the TBT Agreement, there seems to be some room for the application in the terms 'legitimate objective' and 'assessment of risks' in Article 2(2) of the TBT Agreement.¹¹² The case law on the SPS Agreement shows, however, that this space is minimal and we do not expect that this will be different for the TBT Agreement.¹¹³

Regarding the national bans on microplastics, in the notification documents, all except the ones from South Korea referring to 'protection of human health', indicate 'the protection of the environment' as the objective of the measure, some of them referring to scientific studies. France also refers to international obligations regarding protection of the environment, such as the Marine Strategy Framework Directive and the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention). The Commission requested the preparation of the restriction dossier on microplastics relying on 'a threat to the aquatic environment',¹¹⁴ and this objective is expected to be substantiated in the restriction dossier in a comprehensive manner.

The same will be true regarding the examination of alternative measures. In *Korea – Beef*, the issue of alternative measures was discussed as part of the assessment whether a measure was necessary under Article XX(d) GATT 1994.¹¹⁵ The AB further explained in *US –*

¹⁰¹*ibid* para 182.

¹⁰²*Van den Bossche and Zdouc* (n 88) 908; *US – Clove Cigarettes* (n 87) para 182; WTO AB, *United States – Certain Country of Origin Labelling (COOL) Requirements* (29 June 2012) WT/DS384/AB/R and WT/DS386/AB/R (*US – COOL*) para 340.

¹⁰³*US – COOL* (n 102) para 271.

¹⁰⁴Kogan (n 80) 314.

¹⁰⁵TBT Agreement (n 3) art 2(2).

¹⁰⁶*Van den Bossche and Zdouc* (n 88) 914; WTO AB, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products* (22 May 2014) WT/DS400/AB/R and WT/DS401/AB/R (*EC – Seal Products*) para 5.144.

¹⁰⁷TBT Agreement (n 3) art 2(2).

¹⁰⁸*EC – Seal Products* (n 106) para 5.144.

¹⁰⁹*US – COOL* (n 102) para 373.

¹¹⁰Agreement on Sanitary and Phytosanitary Measures (adopted 15 April 1994, entered into force 1 January 1995) (SPS Agreement) 1867 UNTS 493 art 5.

¹¹¹WTO AB, *European Communities – Measures Concerning Meat and Meat Products (Hormones)* (16 January 1997) WT/DS26/AB/R and WT/DS48/AB/R para 124.

¹¹²See J Zander, *The Application of the Precautionary Principle: Comparative Dimensions* (Cambridge University Press 2010) 40, 57, 72–75.

¹¹³CF Foster, 'Precaution, Scientific Development and Scientific Uncertainty under the WTO Agreement on Sanitary and Phytosanitary Measures' (2009) 18 *Review of European Community and International Environmental Law* 50, 58.

¹¹⁴European Commission, 'Note for the attention of Mr G. Dancet, Executive Director, ECHA' Ref. Ares(2017)5463573 (9 November 2017).

¹¹⁵WTO AB, *Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef* (11 December 2000) WT/DS161/AB/R and WT/DS169/AB/R.

Tuna II (Mexico) that '[i]n most cases, a comparison of the challenged measure and possible alternative measure should be undertaken'.¹¹⁶ Arguments and evidence should be presented whether the alternative measure is less trade-restrictive, makes an equivalent contribution to the relevant objective and is reasonably available. The AB deliberated that:

*the obligation to consider 'the risks non-fulfilment would create' suggests that the comparison of the challenged measure with a possible alternative measure should be made in the light of nature of the risks at issue and the gravity of the consequences that would arise from non-fulfilment of the legitimate objective. This suggests a further element of weighing and balancing....*¹¹⁷

A rather similar exercise has to be carried out as part of the restriction dossier and process under REACH.¹¹⁸ In the restriction dossier on microplastics, currently being prepared by ECHA, an impact assessment is included to justify the restriction at a Union-wide level, as the most appropriate measure. A section identifying the risk management options, including alternative measures, is required. For the restriction dossier on microplastics, part of this exercise has already been carried out by a preparatory study on microplastics, in the form of a risk assessment, including a risk management options analysis.¹¹⁹

In case a more encompassing ban is established, for example, by using a broader definition of microplastics than in existing national bans or by including more product categories, the trade-restrictiveness test will be more challenging. While a restriction on microplastics in cosmetic products undoubtedly leads to less microplastics in the environment, it remains to be seen, in relative terms, what the effect is on microplastic pollution in general. Successful voluntary initiatives phasing out certain microplastics in certain products and the limited contribution of cosmetic products to microplastic pollution in general could be aspects to consider within the balancing process. While we conclude below that no international standards exist, scientific consensus on the harmfulness of microplastics and the level of protection may contribute to establishing a certain level of protection as legitimate objective. This should be substantiated with data.

Although the WTO requires an assessment of the actual applied measure, we think the restriction dossier and process serves as a good preparation for a challenge under the WTO agreements.

4.4 | International standards

As the preamble of the TBT Agreement points out, international standards contribute and facilitate the conduct of international trade,

thereby explicitly encouraging harmonization.¹²⁰ Article 2(4) TBT Agreement requires that international standards should be used as a basis for technical regulation, except when these standards would be ineffective or inappropriate. In two cases, the conformity of technical measures has been assessed on the conformity with international standards. In *US – Tuna II (Mexico)*, the AB deliberated at length on the definition of standards and the international standardizing body, requiring that these bodies should be open to all WTO members.¹²¹ Reference was made to a dolphin-safe standard, developed under a regional treaty, but the AB stated that this organization did not satisfy the requirement of being 'international', and thus not being able to develop international standards within the meaning of the TBT Agreement. So, although 'standards' may include rules, guidelines or recommendations, the threshold for being 'international' is rather high. Therefore, it seems unlikely that the definitions used in national regulations, such as those on microplastics, could function as international standards, even in case these regulations use the same standard. Also, an EU restriction measure on microplastics, harmonizing the EU market, would not qualify as an international standard. While plastic pollution has recently received increased attention, both within the EU as outside, no initiative for global regulation on microplastics has been taken so far. Voluntary initiatives of the industry pertain to phasing out certain solid microplastics in rinse-off cosmetic products, in Australia and Europe.¹²² Nongovernmental organizations and scientists have criticized the narrow definition of microplastics and limited category of products. Hence, we conclude that no international standards regarding microplastics exist that could be used as a basis for an EU ban.

5 | CONCLUSIONS

The increasing number of unilateral regulations on microplastics, together with the notifications of these measures under the technical measures notification procedures in the EU and WTO, have provoked questions regarding their compatibility within these regimes. This article has examined how an EU ban on microplastics would affect the right to regulate of the EU Member States and of the EU itself, and likewise for individual States, within the WTO system.

The unilateral measures so far, as well as the preparatory documents for an EU restriction procedure, show that there is no consensus on the definition and on the categories to which a restriction should apply. Although several proposals have been based on the US Microbead-free Waters Act of 2015, which also put an end to diverging state-level legislation, the consultation process for a possible EU restriction shows that an EU ban may include a different definition and other categories of products.

¹¹⁶WTO AB, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products* (16 May 2012) WT/DS381/AB/R para 322.

¹¹⁷*Ibid* para 321.

¹¹⁸REACH (n 5) Annex XV.

¹¹⁹Amec Foster Wheeler Environment & Infrastructure UK Limited (n 34) 45.

¹²⁰TBT Agreement (n 3) preamble; *US – Tuna II (Mexico)* (n 116) para 379.

¹²¹*US – Tuna II (Mexico)* (n 116) paras 343–401.

¹²²Accord Australasia, BeadRecede, <<https://accord.asn.au/sustainability/beadrecede/>>; Cosmetic Europe, 'Press Release Cosmetic Europe, Recommendation on Solid Plastic Particles (Plastic Micro Particles)' (21 October 2015).

Concerning the regulatory autonomy within the EU, we conclude that the Member States' right to regulate first of all depends on the scope of harmonization. Therefore, Member States' scope for regulatory action on microplastics in the EU is largely dependent on the definition that will be adopted under REACH. In case the national and REACH definitions on microplastics are identical, no problems are likely to arise. By contrast, if an all-encompassing definition is used at the EU level, the Member States' scope for action is limited to the situations covered by the derogation clauses of Articles 114(4) and (5) TFEU and Article 129(1) REACH.

On the basis of Article 114(4) TFEU, there seems to be room for maintaining in force current regulations on microplastics. Stricter national measures may be justified on environmental grounds. So far, the Court and the Commission have adopted a quite lenient approach to Article 114(4) TFEU. This is in contrast with the Commission's approach to Article 114(5) TFEU, regulating national provisions after the adoption of a Union harmonization measure, for which the legal scope seems very small. The Member States' right to further regulate microplastics turns out, at least in case of full harmonization, to be seriously constrained. Moreover, since the obligation to compile a restriction dossier under Article 129(1) REACH is likely to discourage Member States from resorting to REACH in urgent situations, Member States' possibilities for further regulation of microplastics seem limited. Although understandable from the point of view of the rationale for harmonization, the question can be raised whether EU Member States are able to respond to arising environmental problems caused by microplastics.

With regard to international trade obligations, we found that an EU ban on microplastics would most probably qualify as a technical measure under the TBT Agreement. No *de jure* or *de facto* discriminatory distinction of non-EU products should be made, while the process of restriction should be open and transparent. Based on the competition-based approach of the AB, cosmetic products with and without microplastics will be considered like products and a restriction should be non-discriminatory to products originating outside the EU, both on paper and in practice. It seems that such a distinction is not made by any of the national bans and an EU ban should follow this practice.

Applying the 'not more trade-restrictive than necessary' test, the outcome regarding an EU ban is less predictable due to a variety of definitions and product categories that can be adopted. The REACH restriction procedure, including the comprehensive requirements of the restriction dossier, may anticipate the balancing and weighing of the test, though the actual operation and application of the measure remain decisive. Departure from more frequently used definitions and categories of products might require additional justification in relation to the legitimate objective and alternative measures. Scientific evidence, also in the absence of international standards, could become essential in this respect.

Hence, the design of a restriction dossier under REACH, including a comprehensive impact and risk assessment of the proposed

restriction and substantiated with scientific evidence, may anticipate a challenge at the WTO. But at the same time, it may deter EU Member States from implementing further national measures, as the compilation of the dossier is perceived being too burdensome. We come to the conclusion that the wider the scope of an EU ban, the more demanding it will be to satisfy the conditions of a legitimate technical measure under the WTO. A wide scope in an EU ban, implicating a higher level of harmonization, may also constrain the possibilities for EU Member States to adopt stricter national measures. We recommend that careful consideration should be given to these issues when defining the scope of the restriction on microplastics in the current restriction process under REACH.

A final point is that the availability of scientific evidence is essential for the risk assessments that are required in both regimes. Uncertainties and gaps in evidence regarding the effects of microplastics on the environment and on human health may prevent the adoption of more restrictive measures, as the precautionary principle plays only a minor, not to say negligible, role in both regimes.

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