
To: Aggregates Europe – UEPG

From: Claudio Mereu, Iacopo Zonca, Maria Beatrice Grassi

Date: 6 September 2024

Re: Legal regime of recovered aggregates and possible exemptions from registration

We refer to our email exchanges and our meetings held between June and July 2024, where Aggregates Europe - UEPG¹ ('*AE-UEPG*') asked Fieldfisher to analyse the legal regime of recovered aggregates from Construction, Demolition and Waste ("*Recovered Aggregates*") and their possible exemption from registration under Regulation 1907/2006 ("*REACH Regulation*").²

This analysis is triggered by the publication of ECHA's Borderline Working Group's 2024 draft paper "*Recovered aggregates: aggregates from construction and demolition waste*" ("*BWG*").³ Essentially, this paper proposes to review the current position under ECHA's '*Guidance on recovered substances and waste*' ("*2010 Guidance*")⁴ according to which Recovered Aggregates should be considered as *articles* under REACH Regulation and, thus, exempted to registration (under certain conditions). On the contrary, BWG argues that Recovered Aggregates should be considered as *substances* or *mixtures*.

BWG's interpretation is based mainly on a (questionable) reading of (i) intrinsic characteristic of Recovered Aggregates, (ii) their manufacturing process, and (iii) applicable guidelines and legal standards.

Please note that this memo is primarily aimed at analysing the legal *status* of Recovered Aggregates in light of the applicable rules and guidelines, with a view of preparing a position paper that will be used to support AE-UEPG's lobbying activities.

EXECUTIVE SUMMARY

- Based on a literal interpretation of the "article" definition under REACH and ECHA's guidelines we conclude that Recovered Aggregates should be considered as *articles* and, as such, should be exempt from registration. Indeed, their shape / form plays a more important role than their chemical composition, as a result of which they should be regarded as "articles".
- Even if Recovered Aggregates were regarded as *substances* / *mixtures*, they might still potentially benefit from a registration exemption under Article 2(7)(b) or (d) of REACH, even though their application is unrealistic in practice.

¹ In partnership with EURIC, EAPA, FEAD, FIR and Concrete Europe

² 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), 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

³ BWG, *Recovered aggregates: aggregates from construction and demolition waste* (2023).

⁴https://echa.europa.eu/documents/10162/23036412/waste_recovered_en.pdf/657a2803-710c-472b-8922-f5c94642f836

- Article 2(7)(b) covers specific substances and therefore its applicability may depend on the exact content of the Recovered Aggregates;
- Article 2(7)(d) requires registering each substance in the Recovered Aggregates and as such, it may be difficult to apply in practice.

I. Introduction: manufacturing process and composition

We understand that Recovered Aggregates result from the mechanical processing of a mixture of mineral based demolition waste and waste from the production of mineral construction products and, selected demolished types of material such as concrete, aggregates brick, asphalt, and other minor materials ("*Input Materials*").

Essentially, the manufacturing process mechanically crushes the Input Materials to produce a granular output of a given particle size, which is then used for bound and unbound applications. In the former case Recovered Aggregates are mixed with binders that provide cohesion by encapsulating the aggregates within an inorganic matrix (e.g. structural concrete, non-structural concrete, concrete for roads and flooring etc.). The latter case involves the use of compacted granular materials in layers for various civil engineering projects without the addition of binders (e.g. sub-base courses, engineering embankments, phonic protections for infrastructures).

For the purposes of the present legal analysis, the following factual elements/definitions are applied:

- **Manufacturing process:** a mechanical and not chemical process where the type of crusher employed and the processing conditions applied (e.g., rotating speed) determine the properties of the output in view of its use.
- **The individual particles:** each individual particle possesses characteristics (e.g., elongation, cubic form, and roundness) that determine the function of the overall bulk of the Recovered Aggregates.
- **The Recovered Aggregates in bulk:** while the shape and surface of an individual particle may not be identical, it is the collective shape and surface of the Recovered Aggregates that allows to fulfil their functions by way of interlocking.
- **EN Standards:** the overall bulk of aggregates have to fulfil precise requirements, specifications and properties for each specified use as detailed by CEN/TC 154, e.g. EN 13242 (unbound and hydraulically bound materials), EN 12620 (concrete), EN 13043 (bituminous mixtures) etc.

II. Current legal regime and applicable guidance

Before the above-described manufacturing process, Input Materials are defined as "*waste*" within the meaning of Article 3(1) of the Waste Framework Directive 2008/98/EC ("*WFD*");⁵ i.e., "*any substance or object which the holder discards or intends or is required to discard*".

This circumstance is particularly relevant as waste is exempted from registration under Article 2(2) of REACH Regulation.

However, following the manufacturing process, Recovered Aggregates should meet the status of "*end of waste*" under Article 6 of the WFD, thus ceasing to be considered as "*waste*". In other words, the manufacturing process of Recovered Aggregates should create new products which may be considered as either articles, substances or mixtures.

This is confirmed by the 2010 Guidance according to which "all forms of recovery, including mechanical processing, are considered as a manufacturing process whenever, after having undergone one or several recovery steps, they result in the generation of one or several substances as such or in a mixture or in an article that have ceased to be waste".⁶

Therefore, Recovered Aggregates are governed by REACH, which entails the applicability of obligations set out therein, such as registration unless certain exemptions apply. In this respect, the 2010 Guidance considers Recovered Aggregates as "articles" within the meaning of Article 3(3) REACH, thereby exempting them from registration.⁷

This interpretation is based on the following arguments: (i) "particles from aggregates from construction and demolition waste are produced with specific shape and surface characteristics depending on their application, like e.g. in asphalt pavements"⁸ and (ii) the shape, surface or design determine the function of the Recovered Aggregates to a greater degree than their chemical composition.⁹

It should be noted that such interpretation is in line with the definition of "articles" under REACH Regulation read in conjunction with the applicable guidelines and case law of the Court of Justice.

In particular, Article 3(3) of REACH Regulation defines an article as "an object which during production is given a special shape, surface or design which determines its function to a greater degree than its chemical composition".¹⁰ In other words, an article is an object made from one or more substances or mixtures which was given a specific shape, surface or design during the production process.¹¹

In this regard, the Guidance on requirements for substances in articles ("SiA Guidance") identifies the following conditions in order to establish whether an object fulfils the definition of article: (i) assess the object's function (i.e., the "intended purpose for which an object is to be used")¹² and (ii) establish whether its shape, surface or design, which are given during production, determine its function to a greater degree than the chemical composition.¹³

Then, the SiA Guidance specifies that (i) shape, surface or design should not be confused with physical characteristics that result from the chemistry of materials (e.g., cleavage, density, ductility, melting point, etc).¹⁴ and that (ii) shape, surface or design of articles "must be deliberately determined and given during a production step" (emphasis added).¹⁵

Additionally, the case law of the Court of Justice of the European Union¹⁶ concludes that: "[i]t is clear from that definition that the classification of an object as an article within the meaning of the REACH Regulation turns on three factors. Firstly, the term 'article' refers only to objects which have undergone 'production'."

⁶ 2010 Guidance, p. 5

⁷ https://echa.europa.eu/documents/10162/2324906/waste_recovered_en.pdf/657a2803-710c-472b-8922-f5c94642f836

⁸ ECHA Guidance on recovered substances and waste (2010), p. 23

⁹ ECHA Guidance on recovered substances and waste (2010), p. 23

¹⁰ More information on how to determine if an object fulfils the above definition, including instructions on how to address borderline cases, is included in the ECHA Guidance on requirements for substances in articles, Chapter 2

¹¹ ECHA Guidance on requirements for substances in articles (2017), p. 16

¹² *Ibid.*

¹³ In that respect, 'shape' means "the three-dimensional form of an object, like depth, width and height"; 'surface' means "the outermost layer of an object"; 'design' means "the arrangement or combination of the "elements of design" in such a way as to best accomplish a particular purpose of the object, taking into account amongst others the safety, utility/convenience, durability, and quality"

¹⁴ *Ibid.*

¹⁵ *Ibid.*, p.17

¹⁶ Case C-106/14, Fédération des entreprises du commerce et de la distribution (FCD) and Fédération des magasins de bricolage et de l'aménagement de la maison (FMB) v Ministre de l'écologie, du développement durable et de l'énergie, ECLI:EU:C:2015:576

therefore pertains only to manufactured objects, in contrast to objects in their natural state. Secondly, the production process must give the object in question 'a special shape, surface or design', except for inter alia physical or chemical properties. Thirdly, that shape, surface or design resulting from the manufacturing process must be more decisive for the function of the object in question than its chemical composition"(emphasis added).

Also, it appears clear from the *ECHA Guidance of waste and recovered substances* that if one could unambiguously conclude that the shape, surface or design of an object is more relevant for the function than its chemical composition, the object is an article.¹⁷ Furthermore, if whenever a recovered material is supposed to undergo further chemical reaction, is an indication that the material is a substance on its own or a mixture rather than an article.¹⁸ Therefore, by a *reductio ad contrarium*, if shape, surface or design appear more relevant than the chemical composition and the object does not undergo further chemical process, it can be considered an article.

In the case at hand, the three conditions established in the case-law are met, i.e.,:

- Recovered Aggregates are the result of the production of objects that are otherwise not present in their natural state (first condition),
- The production process provides a special shape and surface to the object in question (second condition) and
- That shape and surface is more critical for the final product than its chemical composition (third condition).

More specifically, if the 'assembly' of the individual particles of the Recovered Aggregates changed their shape, the resulting bulk of Recovered Aggregates would not exert its function through interlocking. As a consequence, the bulk of Recovered Aggregates should be considered as an article and the previous steps in the production process should be seen as essential steps for the production of that article. In support of this interpretation, it can also be affirmed that their shape and their surface and design play a major role and that no chemical reaction occur during the manufacturing process, in line with the requirements established in *ECHA Guidance of waste and recovered substances*.

III. The 2024 BWG's position

BWG essentially argues that Recovered Aggregates should be considered as substances and/or mixtures rather than articles on the following grounds.

First, the BWG states that no special shape, surface or design is given to Recovered Aggregates during the manufacturing process as "*particles, resulting from crushing, show significant variabilities in their dimensions (dispersity in size and shape) and surface*".¹⁹ In particular, BWG reaches this conclusion on the basis of the following arguments:

- "*the shape and surface of each crushed smaller object or particle are not deliberately given during the crushing process*" as it should be under the principles established in the SiA Guidance.²⁰
- "*shape and surface concepts apply to each aggregate particle and not to a set or ensemble of aggregate particles*" and that each particle of the Recovered Aggregates varies significantly from one another, which does not allow to conclude that they are "*fully identical articles*" as dictated by the guidance '*Requirements for SCIP notifications*' ("*SCIP Guidance*").²¹

¹⁷ *ECHA Guidance of waste and recovered substances*, p. 6

¹⁸ *Ibid.*

¹⁹ BWG, "*Recovered aggregates: aggregates from construction and demolition waste*" (2023) p. 5

²⁰ BWG, "*Recovered aggregates: aggregates from construction and demolition waste*" (2023) p. 5

²¹ ECHA, *Requirements for SCIP notifications* (2020), p. 37-38

- the concept of size or shape in EN Standards for Recovered Aggregated "*must not be confused with the definition of shape under the REACH Regulation*".²²

Second, BWG states that no special physical form (shape, surface or design) is required for a particle of Recovered Aggregates to perform its main functions, i.e. as ingredient to formulate mixtures in bound applications and as filler in unbound applications.

In addition, BWG observes that the function of Recovered Aggregates described in the 2010 Guidance²³ should be better specified in light of the SiA Guidance as ingredient to formulate mixtures in bound applications and as filler in unbound applications since "*no special physical form (shape, surface or design) is required for the aggregate particle and therefore the physical characteristics shape, surface and design do not determine its function*".²⁴

Finally, BWG claims that most of the characteristics of the particles of Recovered Aggregates are "*more related with the chemical composition*" - such as density, porosity, crushing strength and toughness, stiffness, permeability, water absorption/retention, freeze–thaw resistance and soundness - rather than their physical form.²⁵

BWG mainly supports its conclusions with reference to the features of the Recovered Aggregates and their manufacturing process read in conjunctions with the SiA and SCIP Guidance as well as the EN Standards. However, a more careful assessment of these elements demonstrates that Recovered Aggregates should be considered as *articles* under REACH Regulation and BWG's interpretation is factually incorrect and legally unsound.

IV. The legal and factual flaws of the BWG's interpretation

- i. **First, it is not true that no special shape, surface or design is given to recovered aggregates during the manufacturing process as "*particles, resulting from crushing, show significant variabilities in their dimensions (dispersity in size and shape) and surface*".²⁶**

In line with BWG's reasoning, this argument should be rebutted with reference to SiA Guidance, SCIP Guidance and EN Standards.

- ***The SiA Guidance***

BWG erroneously states that "*the shape and surface of each crushed smaller object or particle are not deliberately given during the crushing process*" as it should be under the principles established in the SiA Guidance.

As explained in the introduction, Recovered Aggregates are manufactured via a mechanical - and not chemical – process, where the type of crusher employed and the processing conditions applied (e.g., rotating speed) determine the properties and shape of the output in view of its specific use.

Therefore, in consideration of the principles established in the SiA Guidance (see chapter iii), Recovered Aggregates can be considered articles in that their shape, and their surface and their design are deliberately given during their manufacturing process and determine their function to a greater degree than the chemical composition.

- ***SCIP Guidance***

²² BWG, "*Recovered aggregates: aggregates from construction and demolition waste*" (2023) p. 6

²³ i.e. to provide resistance and stability to degradation/fragmentation

²⁴ BWG, "*Recovered aggregates: aggregates from construction and demolition waste*" (2023) p. 7

²⁵ *Ibid.*

²⁶ BWG, "*Recovered aggregates: aggregates from construction and demolition waste*" (2023) p. 5

BWG erroneously states that "*shape and surface concepts apply to each aggregate particle and not to a set or ensemble of aggregate particles*" and that each aggregate particle varies significantly from one another, which does not allow to conclude that they are '*fully identical articles*' as dictated by the SCIP Guidance.

By contrast, the individual particles of Recovered Aggregates can be considered as "*fully identical articles*" because they meet the three requirements indicated in the SCIP Guidance, that is, they have the same (i) function or use, (ii) chemical composition and (iii) physical form (as per the last two requirements, the SCIP Guidance clarifies that "*[v]ery small variations in the physical form and chemical composition can exist due to common differences resulting from the production process*").²⁷

This seems in line with the manufacturing process of Recovered Aggregates where small variations in the chemical composition and physical form can happen due to the manufacturing process (i.e., mechanical processing of a mix of stony demolition waste and waste from the production of stony building materials).

- **EN Standards**

Recovered Aggregates meet the required EN Standard describing methods to determine size/shape, surface and design of such particles.

In that respect, BWG claims that the parameters "*used in standards such as EN 12620, 13043 or 13242 for geometrical requirements, more precisely for sizes and size distribution, for processed aggregates, do not define a shape as defined in the SiA Guidance for each aggregate particle. Therefore, the concept of size or shape in those standards must not be confused with the definition of shape under the REACH Regulation.*"²⁸ .

This conclusion seems quite weak. First, REACH Regulation does not define the concept of shape, surface or design. Second, the SiA Guidance gives a general definition of shape, design and surface²⁹ without making any distinction between particles and an object made of several particles such as Recovered Aggregates.

Therefore, BWG's reference to the EN Standards is misplaced.

- ii. **Second, the BWG erroneously states that no special physical form is required for a particle of Recovered Aggregates to perform its main functions.**

As explained above, single particles of Recovered Aggregates are manufactured with very slight differences in their form and shape (for example, the angularity³⁰ of each individual particle). We understand that it is precisely these differences that play a key role in their further use and function, since it allows them to interlock with one another, thereby achieving the required stability and resistance. On the contrary, if each particle had a precise shape (e.g., all perfect cubes), the interlocking function would not be technically achieved.

It should also be stressed that, in line with the "article" definition under REACH, the Recovered Aggregates' physical form required to perform their function prevails over their chemical composition. It is important to

²⁷ ECHA, Requirements for SCIP notifications (2020), p. 38

²⁸ BWG, "*Recovered aggregates: aggregates from construction and demolition waste*" (2023) p.6

²⁹ SiA Guidance, p. 18

³⁰ As precisely explained in the position paper: "*Angularity, as demanded by CEN/TC 154 harmonized aggregate standards, reflects the angle at which individual particles stack. It is a measure of the ability to form a stable construction. The more angular particles in an aggregate product, the greater stability that can be achieved*"

note that density and other properties mentioned by BWG³¹ refer to the physical characteristics of Recovered Aggregates rather than with shape/surface/design.³² Indeed, features such as density, porosity, crushing strength and toughness, stiffness, permeability, water absorption/retention, freeze-thaw resistance and soundness are primarily influenced by the shape, surface, and design of Recovered Aggregates rather than their chemical composition. For example, the density of Recovered Aggregates is given by the staking of each individual particle which is achieved by way of interlocking of these particles.

Once again, it is the shape of each individual particle that allows the interlocking and, ultimately, the fulfilment of the functions of Recovered Aggregates. On the contrary, their chemical composition is irrelevant.

BWG has given undue weight to the variability of the particles rather than their intended function stemming from that variability.

Finally, it shall be concluded, in any event, that Recovered Aggregates meet the definition of articles by following Step 3 and Step 6 in the SiA Guidance.

Step 3 requires to "**[d]etermine if the object, which may be constructed in a very simple or highly sophisticated manner, contains a substance or mixture that can be physically separated from the object (e.g. by pouring or wringing out). The substance or mixture in question, which can be solid, liquid or gaseous, can be enclosed in the object (like e.g. the liquid in a thermometer or the aerosol in a spray can), or the object can carry it on its surface (like e.g. a wet cleaning wipe). If this applies to the object, proceed with step 4, otherwise proceed with step 6**" (emphasis added).³³

Indeed, Recovered Aggregates do not contain a substance/mixture that can be physically separated from them by any physical or mechanical mean (e.g. by pouring or wringing out). The substance/mixture in question is not even enclosed in the object nor carried it on its surface but is part of the Recovered Aggregates themselves (Step 3). On the other hand, the substance/mixture appears as an integral part of the Recovered Aggregates.

Therefore, the substances / mixtures in Recovered Aggregates cannot be "*physically separated from the object*", it is necessary to move to Step 6.

Step 6 lists the following questions and specifies that "**[p]redominantly answering with yes to the questions indicates that the object is an article [...]**":

- Question 6a: Does Recovered Aggregates have a function other than being further processed?

Yes, Recovered Aggregates exert specific functions within the bound and unbound applications.

- Question 6b: Does the seller place Recovered Aggregates on the market and/or is the customer mainly interested in acquiring it because of its shape/surface/design (and less because of its chemical composition)?

Yes, Recovered Aggregates are sold and purchased for their functions which is due to their shape/surface/design rather than the chemical composition. Indeed, Recovered Aggregates exert their function via the interlocking of the single particles.

³¹ e.g., i.e. "porosity (dry volumetric weight), crushing strength and toughness, stiffness, permeability, water absorption/retention, freeze-thaw resistance and soundness"; see BWG, "*Recovered aggregates: aggregates from construction and demolition waste*" (2023) p. 7

³² ECHA Guidance on requirements for substances in articles (2017), p. 16

³³ SiA Guidance, p. 19

- Question 6c: When further processed, does Recovered Aggregate undergo only “light processing”, i.e. no gross changes in shape?

Yes, Recovered Aggregates do not undergo any processing when used in bound and unbound applications.. Indeed, it is their shape that allows Recovered Aggregates to exert their function via the interlocking of the single particles.

- Question 6d: When further processed, does the chemical composition of the recovered aggregate remain the same?

Yes, the chemical composition of Recovered Aggregates does not change when manufactured nor when used in bound or unbound applications.

Therefore, by answering *yes* to most of the indicative questions, it is possible to conclude that Recovered Aggregates meet the definition of *article* under REACH.

V. Consequences of considering Recovered Aggregates as articles under REACH

i. Registration

Articles as such are not subject to registration under REACH Regulation since registration obligations apply only to substances (on their own, in mixtures or in articles).³⁴ However, substances in articles must be registered in the following cases:

- If (a) the substance is present in those articles in quantities totalling over one tonne per producer or importer per year; and (b) the substance is intended to be released under normal or reasonably foreseeable conditions of use. However, this rule would not apply if a manufacturer or importer in the EU for that use has already registered the substance (see Article 7(1) REACH Regulation); or
- If ECHA takes the decision to require registration when all the following conditions are met: (a) the substance is present in those articles in quantities totaling over one ton per producer or importer per year; and (b) ECHA has grounds for suspecting that:(i) the substance is released from the articles and (ii) the release of the substance from the articles presents a risk to human health or the environment; (c) the substance is not subject to Article 7(1) REACH Regulation already - *Article 7(5) of REACH*

Please note that these obligations apply to all substances contained in articles, regardless of their hazardous status, e.g. whether or not they are listed as Substances of Very High Concern ('SVHC') etc.

ii. Notification

Notification will be required if the substance is identified as SVHC and if the following cumulative conditions are met: (a) the substance is present in those articles in quantities totalling over one tonne per producer or importer per year; and (b) the substance is present in those articles above a concentration of 0,1% w/w.³⁵ This notification shall include all the information indicated in Article 7(4) REACH Regulation. ³⁶

³⁴ ECHA Guidance on registration (2021), p. 14

³⁵ Article 7(2) of REACH

³⁶ (a) the identity and contact details of the producer or importer as specified in section 1 of Annex VI, with the exception of their own use sites; (b) the registration number(s) referred to in Article 20(1), if available; (c) the identity of the substance as specified in sections 2.1 to 2.3.4 of Annex VI; (d) the classification of the substance(s) as specified in sections 4.1 and 4.2 of Annex VI; (e) a brief description of the use(s) of the substance(s) in the article as specified in section 3.5 of Annex VI and of the uses of the article(s)

However, this notification obligation will not apply in two cases. First, when the importer can exclude exposure to humans or the environment during normal or reasonably foreseeable conditions of use including disposal. In such case, the importer will not have to notify the substance, but he will have to supply appropriate instructions to the recipient of the article.³⁷ In other case, when the substance has already been registered by a manufacturer or importer in the EU for that use.³⁸

iii. Communication

Finally, as part of their communication obligations, importers of articles shall provide the recipient³⁹ of the article with sufficient information to allow safe use of the article including, as a minimum, the name of the SVHC substance.⁴⁰ The same obligation applies to articles supplied to consumers upon request. The information must be provided free of charge within 45 days.⁴¹

VI. Exemptions under Article 2(7)(b) and Article 2(7)(d) of REACH Regulation

In case Recovered Aggregates were not considered as articles within the conditions described above, they may be subject to registration under REACH Regulation unless another exemption applies.

In this regard, the Commission hypothesizes in the "*CARACAL 52nd Meeting, Recovered aggregates: aggregates from construction and demolition waste*" that Recovered Aggregates could be mainly considered as (i) substances of Unknown or Variable composition, Complex reaction products, or Biological materials ("UVCB")⁴² or (ii) mixtures.

In particular, the Commission states that: "*the recovery process (ending in a non-waste material) could be seen as a manufacturing process, and thus the recovered aggregate could be a UVCB substance (as manufactured). Secondly, the recovery process could be seen as producing a mixture of blended recovered substances*".⁴³

The exact classification of aggregates (i.e., UVCB or mixture) goes beyond the scope of this memo since, in both cases, REACH Regulation would apply (in this regard, the Commission claims that "*[i]f recovered aggregates would be considered as substances or mixtures, they may be subject to the following obligations: [...] In principle, registration of the substance if recovered aggregates are considered a substance, or of substances contained in them, if recovered aggregates are considered a mixture [...]*").⁴⁴

That said, Recovered Aggregates might be exempted from registration if falling within one of the exceptions under Articles 2(7)(b) and (d) of REACH.

In this regard, the Commission states that "*[...] for registration, exemptions under Article 2(7)(b) and Article 2(7)(d) may apply [...] Article 2(7)(b) make[s] reference to substances listed in Annex [...] V of REACH, which are exempted from registration. These include minerals, ores, ore concentrates, cement clinker, magnesia, if they are not chemically modified, and others such as ceramic frits under certain circumstances. Where such materials are concerned and where no chemicals modification has taken place during the waste*

³⁷ Article 7(3) of REACH Regulation

³⁸ Article 7(5) of REACH Regulation

³⁹ Please note that "recipients" refers to industrial or professional users and distributors, but not to consumers

⁴⁰ Article 33(1) REACH Regulation

⁴¹ Article 33(2) REACH Regulation

⁴² "Substances of Unknown or Variable composition, Complex reaction products or Biological materials, also called UVCB substances cannot be sufficiently identified by their chemical composition, because: (i) the number of constituents is relatively large and/or; (ii) the composition is, to a significant part, unknown and/or (iii) the variability of composition is relatively large or poorly predictable, ECHA Guidance for identification and naming of substances under REACH (2023), p. 35

⁴³ CARACAL 52th Meeting, Recovered aggregates: aggregates from construction and demolition waste, (1-2 July 2024), p. 4

⁴⁴ *Ibid.*

stage, also the recovered material is exempted from registration [...] producers of recovered aggregates may still rely on the exemption laid out in Article 2(7)(d), provided they meet the conditions laid out therein".⁴⁵

These exceptions will be assessed in greater detail herein below, in turn.

i. Article 2(7)(b) of REACH Regulation

Article 2(7)(b) exempts from registration "substances covered by Annex V, as registration is deemed inappropriate or unnecessary for these substances and their exemption from these Titles does not prejudice the objectives of this Regulation".

In turn, Annex V of REACH Regulation lists the following categories of substances:

- 1) Substances which result from a chemical reaction that occurs incidental to exposure of another substance or article to environmental factors such as air, moisture, microbial organisms or sunlight.
- 2) Substances which result from a chemical reaction that occurs incidental to storage of another substance, mixture or article.
- 3) Substances which result from a chemical reaction occurring upon end use of other substances, mixtures or articles and which are not themselves manufactured, imported or placed on the market.
- 4) Substances which are not themselves manufactured, imported or placed on the market and which result from a chemical reaction that occurs when: (a) a stabiliser, colorant, flavouring agent, antioxidant, filler, solvent, carrier, surfactant, plasticiser, corrosion inhibitor, antifoamer or defoamer, dispersant, precipitation inhibitor, desiccant, binder, emulsifier, de-emulsifier, dewatering agent, agglomerating agent, adhesion promoter, flow modifier, pH neutraliser, sequesterant, coagulant, flocculant, fire retardant, lubricant, chelating agent, or quality control reagent functions as intended; or (b) a substance solely intended to provide a specific physicochemical characteristic functions as intended.
- 5) By-products, unless they are imported or placed on the market themselves.
- 6) Hydrates of a substance or hydrated ions, formed by association of a substance with water, provided that the substance has been registered by the manufacturer or importer using this exemption.
- 7) The following substances which occur in nature, if they are not chemically modified: Minerals, ores, ore concentrates, raw and processed natural gas, crude oil, coal.
- 8) Substances which occur in nature other than those listed under paragraph 7, if they are not chemically modified, unless they meet the criteria for classification as dangerous according to Regulation (EC) No 1272/2008 or unless they are persistent, bioaccumulative and toxic or very persistent and very bioaccumulative in accordance with the criteria set out in Annex XIII or unless they were identified in accordance with Article 59(1) at least two years previously as substances giving rise to an equivalent level of concern as set out in Article 57(f).
- 9) The following substances obtained from natural sources, if they are not chemically modified, unless they meet the criteria for classification as dangerous according to Directive 67/548/EEC with the exception of those only classified as flammable [R10], as a skin irritant [R38] or as an eye irritant [R36] or unless they are persistent, bioaccumulative and toxic or very persistent and very bioaccumulative in accordance with the criteria set out in Annex XIII or unless they were identified

⁴⁵ *Ibid.*

in accordance with Article 59(1) at least two years previously as substances giving rise to an equivalent level of concern as set out in Article 57(f): Vegetable fats, vegetable oils, vegetable waxes; animal fats, animal oils, animal waxes; fatty acids from C₆ to C₂₄ and their potassium, sodium, calcium and magnesium salts; glycerol.

- 10) The following substances if they are not chemically modified: Liquefied petroleum gas, natural gas condensate, process gases and components thereof, coke, cement clinker, magnesia.
- 11) The following substances unless they meet the criteria for classification as dangerous according to Directive 67/548/EEC and provided that they do not contain constituents meeting the criteria as dangerous in accordance with Directive 67/548/EEC present in concentrations above the lowest of the applicable concentration limits set out in Directive 1999/45/EC or concentration limits set out in Annex I to Directive 67/548/EEC, unless conclusive scientific experimental data show that these constituents are not available throughout the lifecycle of the substance and those data have been ascertained to be adequate and reliable: Glass, ceramic frits.
- 12) Compost, biogas and digestate.
- 13) Hydrogen and oxygen.

Most of the above categories do not apply to Recovered Aggregates, as described in the introduction.

We refer, in particular, to the entries under 1, 2, 3, 4, 6, 9, 12 and 13. Indeed, these exceptions refer to

- a) Substances that are the result of a chemical reactions (i.e., entries 1, 2, 3, 4): Recovered Aggregates do not undergo any chemical processing.
- b) Hydrates of a substance or hydrated ions (i.e., entry 6): Recovered Aggregates do not contain such substances.
- c) Vegetable fats, vegetable oils, vegetable waxes; animal fats, animal oils, animal waxes; fatty acids from C₆ to C₂₄ and their potassium, sodium, calcium and magnesium salts; glycerol (i.e., entry 9): Recovered Aggregates do not contain such substances.
- d) Compost, biogas and digestate (i.e., entry 12): Recovered Aggregates do not contain such substances.
- e) Hydrogen and oxygen (i.e., entry 13): Recovered Aggregates do not contain such substances.

Herein below we will review entries 5, 7, 8 10 and 11 in light of the nature of the Recovered Aggregates.

- **Entry 5: By-products, unless they are imported or placed on the market themselves**

Recovered Aggregates might be regarded potentially as by-products stemming from the process of demolishing buildings and infrastructure.

However, ECHA's Guidance for Annex V Exemptions from the Obligation to Register ("*Annex V Guidance*") clarifies that by-products should be defined with reference to Directive 2008/98/EC ("Waste Framework Directive"). In this regard, Article 5 of the Waste Framework Directive defines by-product as "*[...] substance or object resulting from a production process the primary aim of which is not the production of that substance or object is considered not to be waste [...]*" (emphasis added).

It is clear that the primary aim of the production process of Recovered Aggregates is their own manufacture.

Therefore, Recovered Aggregates cannot be considered as a by-product, thus entailing the inapplicability of the exception at hand.

- **Entry 7: The following substances which occur in nature, if they are not chemically modified: Minerals, ores, ore concentrates, raw and processed natural gas, crude oil, coal.**

According to the Annex V Guidance, "[t]his exemption includes only the above listed groups of substances provided that they occur in nature as defined in Article 3(39), if they are not chemically modified as defined in Article 3(40), irrespective of whether or not they are classified as dangerous according to Directive 67/548/EEC or hazardous according to Regulation (EC) No 1272/2008" (emphasis added).

In turn, Article 3(39) of REACH Regulation defines substances which occur in nature as "a naturally occurring substance as such, unprocessed or processed only by manual, mechanical or gravitational means, by dissolution in water, by flotation, by extraction with water, by steam distillation or by heating solely to remove water, or which is extracted from air by any means" (emphasis added).

The applicability of this exemption may therefore depend on the Input Materials used to manufacture the Recovered Aggregates. In this regard, the Annex V Guidance refers to "Other examples of minerals include (but are not limited to): Dolomite (CAS number 16389-88-1) CaCO_3 . MgCO_3 , a rock-forming mineral; Limestone (CAS number 1317-65-3), which consists principally of calcium carbonate and may also contain magnesium carbonate; Barite (CAS number 13462-86-7), which principally consists of barium sulfate; Fluorapatite (CAS number 1306-05-4), the most common phosphate rock mineral".

We understand that several substances may be present in the Recovered Aggregates in consideration of the Input Materials (i.e., mix of mineral based demolition waste and waste from the production of mineral construction products and waste from the production of building materials and, sometimes, selectively demolished types of material such as concrete, limestone, bricks and others).

However, the nature of Recovered Aggregates makes this exception difficult to apply in practice. This is due to the fact the Recovered Aggregates do not contain exclusively "substances which occur in nature, [...] not chemically modified", but a series of different components coming from demolishing processes such bricks, cement, etc.

In conclusion, this exception could apply potentially only to some of the components of the Recovered Aggregates (e.g., those made exclusively of unprocessed minerals such as limestone, dolomite, barite, etc.) so making it of unrealistic application. Indeed, the overall bulk of Recovered Aggregates would not be exempted from registration, but only a component.

- **Entry 8: Substances which occur in nature other than those listed under paragraph 7, if they are not chemically modified, unless they meet the criteria for classification as dangerous according to Regulation (EC) No 1272/2008 or unless they are persistent, bioaccumulative and toxic or very persistent and very bioaccumulative in accordance with the criteria set out in Annex XIII or unless they were identified in accordance with Article 59(1) at least two years previously as substances giving rise to an equivalent level of concern as set out in Article 57(f).**

Refer to the previous comment.

- **Entry 10: The following substances if they are not chemically modified: Liquefied petroleum gas, natural gas condensate, process gases and components thereof, coke, cement clinker, magnesia**

The exception seems relevant with reference to the "cement clinker" which, we understand, is a nodular material produced in the kilning stage during the production of cement and is used as the binder in many cement products.

As per the previous case, the applicability of this exception seems to be impaired by the very nature of the Recovered Aggregates. As those products do not contain exclusively cement clinker, the exception under entry 10 would apply only to a component of Recovered Aggregates but not to the overall bulk.

- **Entry 11: The following substances unless they meet the criteria for classification as dangerous according to Directive 67/548/EEC and provided that they do not contain constituents meeting the criteria as dangerous in accordance with Directive 67/548/EEC present in concentrations above the lowest of the applicable concentration limits set out in Directive 1999/45/EC or concentration limit set out in Annex I to Directive 67/548/EEC, unless conclusive scientific experimental data show that these constituents are not available throughout the life-cycle of the substance and those data have been ascertained to be adequate and reliable: Glass, ceramic frits**

According to the Annex V Guidance: (i) "glass or ceramic frits are only to be exempted if they (as substances as such) do not meet the criteria for classification as dangerous according to Directive 67/548/EEC. There are two possibilities to assess this criterion: look at the glass or frit itself or look at the starting materials" and (ii) "they are not exempted if the substance contains constituents meeting the criteria as dangerous in accordance with Directive 67/548/EEC that are present in concentrations above the lowest of the applicable concentration limits set out in Directive 1999/45/EC or concentration limit set out in Annex I to Directive 67/548/EEC, unless conclusive scientific experimental data show that these constituents are not available throughout the life-cycle of the substance and those data have been ascertained to be adequate and reliable."

Regardless of these conditions, we believe that the applicability of this exception is once again dependant on the content of Recovered Aggregates. The fact that Recovered Aggregates do not contain exclusively glass and/or ceramic frits, but a series of additional Input Materials makes this exception difficult to apply. For example, Recovered Aggregates do not contain exclusively glass and/or ceramic frits (i.e., entry 11), but a series of additional Input Materials that may not fall within this exception so making it inapplicable in practice (as explained below, the Input Materials that do not benefit of this exception would likely not benefit even of the one under Article 2(7)(d)).

In conclusion, the nature (i.e., composition) of Recovered Aggregates makes the exception under Article 2(7)(b) of REACH Regulation inapplicable in practice.

ii. Article 2(7)(d) of REACH Regulation

This provision exempts from registration "substances, on their own, in mixtures or in articles, which have been registered in accordance with Title II and which are recovered in the Community if: (i) the substance that results from the recovery process is the same as the substance that has been registered in accordance with Title II; and (ii) the information required by Articles 31 or 32 relating to the substance that has been registered in accordance with Title II is available to the establishment undertaking the recovery".

As explained above, the process of recovery is considered as a manufacture of a new substance / mixture in the 2010 Guidance according to which "all forms of recovery, including mechanical processing, are considered as a manufacturing process whenever, after having undergone one or several recovery steps, they result in the generation of one or several substances as such or in a mixture or in an article that have ceased to be waste".⁴⁶

Therefore, this exception may apply in principle to Recovered Aggregates in that their production can be considered as the manufacture of new substances (i.e., each substance contained in the Recovered Aggregates).

⁴⁶ 2010 Guidance, p. 5

Indeed, as explained in the introduction, Recovered Aggregates result from the mechanical processing of a mix of stony demolition waste and waste from the production of stony building materials and, sometimes, selectively demolished types of material such as concrete, limestone, bricks and other materials – i.e., the Input Materials.

As a consequence, Recovered Aggregates contain nearly all the substances included in the Input Materials.

The identification of these substances may be a burdensome exercise, as it essentially requires a chemical analysis of all the Input Materials in order to identify their chemical composition in line with the principles established in the ECHA Guidance for identification and naming of substances under REACH and CLP.⁴⁷

In case the chemical composition of Recovered Aggregates can be established, it is then necessary to assess whether the same substances identified have been already registered. The identification of registered substances should be a rather simple exercise as it should be sufficient to check the registration status of the identified substances on the ECHA's website.

The obligation to register a substance usually lies within the supply chain of that substance. In essence, if the manufacturer / importer of a substance has already registered it, downstream users⁴⁸ can purchase the registered substance from the manufacturer without the need for a registration (as exemplified in ECHA's Guidance on Registration: *"A company purchasing registered substances from within the EU and then formulating these into mixtures (e.g. paints) would be regarded as a downstream user under REACH. In layman's terms this company might be considered a manufacturer of paints. However, within the context of REACH the company would not be a manufacturer of a substance and so would have no registration obligations for these substances"*).

However, the supply line requirement does not apply due to the very nature of Recovered Aggregates (i.e., the recovery process equates to manufacture). In this regard, as correctly noted by the Commission *"it is [...] sufficient if anyone has registered those materials before the exemption applies"*. Therefore, if the same substances as those present in Recovered Aggregates have been registered by another actor in any supply chain, it is not necessary to further re-register them.

Overall, the application of this exception is unrealistic in practice

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In addition, the applicability of the exceptions under Articles 2(7)(b) and (d) results cumbersome and not economically viable from a practical point of view. Overall, the supply chain of Recovered Aggregates is complex and characterized by uncertainty regarding the content of the Input Material.

Demolition companies generate the Input Materials via the dismantling of building and other structures. These companies do not have detailed information on the exact composition of the material resulting from the demolition process (i.e., the Input Materials as defined above) as buildings can be made of a wide variety of substances (e.g., bricks, glass, iron, wood, concrete, etc.).

Recovering companies purchase the Input Materials and process them as above described to generate the Recovered Aggregates. The exact composition of the Recovered Aggregates can vary due to the nature of

⁴⁷ Since UVCB substances are variable in nature, they need not match the exact chemical composition, but some variation is possible, depending on their components – ECHA Guidance for identification and naming of substances under REACH and CLP (2023), p. 4; ECHA Guidance on registration (2021), p. 55

⁴⁸ Defined as Downstream user: means any natural or legal person established within the EU, other than the manufacturer or the importer, who uses a substance, either on its own or in a mixture, in the course of his industrial or professional activities (Article 3(13) of REACH Regulation)

the Input Materials. In other words, the composition of Recovered Aggregates cannot be always consistent, but it varies on the basis of the Input Materials.

Due to the above, producers of Recovered Aggregates would have to conduct extensive testing on each particle and batch of Recovered Aggregate manufactured in order to determine their composition, and, therefore, whether one of the exceptions under Article 2(7)(b) or (d) applies.

However, this exercise is impractical, unfeasible, and burdensome in terms of time and resources, as it requires companies manufacturing Recovered Aggregates to initiate an activity (i.e., the chemical assessment of their products) for which they are neither equipped nor prepared, and which would require a disproportionate amount of resources.

In practical terms, manufacturers of Recovered Aggregates would have to bear significant investments, such as hiring experts or appointing laboratories to assess the macro composition of each batch of Recovered Aggregates they manufacture.

This would result in additional costs which would render the business essentially unprofitable. By way of example, assuming the following conditions:

- The margin for selling Recovered Aggregates is € 1 to € 1,50 per tonne;
- Testing cost around € 500;
- Every day circa 80 trucks bring to the manufacturing facilities approximately 25 tonnes each of Input Materials coming from different sources.

This would result in 30 tests per day for a cost of € 15.000 Euro per 2.000 tonnes which would bring the cost for Recovered Aggregates from € 1 / 1,50 to € 7,50 Euro per tonne.

It is self-evident from these figures that the business will become financially unsustainable.

Finally, this approach contradicts the principle of proportionality enshrined in EU law.⁴⁹ The principle of proportionality mandates that measures should not be excessive or go beyond what is necessary to achieve their objectives. Requiring companies to conduct extensive and exhaustive tests on Recovered Aggregates could be seen as 'demanding the unfeasible', thus breaching this fundamental principle. Indeed, it would place an undue burden on businesses, potentially stifling innovation and progress in the construction industry.

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⁴⁹ Judgments of 8 July 2010, *Afton Chemical*, C 343/09, EU:C:2010:419, paragraph 45; of 21 July 2011, *Etimine*, C 15/10, EU:C:2011:504, paragraph 124; and of 1 February 2013, *Polyelectrolyte Producers Group and Others v Commission*, T 368/11, not published, EU:T:2013:53, paragraph 75