



Deliverable DA1.1.2 Review of legal requirements



This project is financed by the LIFE Programme 2014-2020 of the European Union for the Environment and Climate Action under the project number LIFE19 ENV/ES/000121.
Este proyecto está financiado por el Programa LIFE 2014-2020 de Medio Ambiente y Acción por el Clima de la Unión Europea con referencia LIFE19 ENV/ES/000121.

Index

1. Introduction	2
2. Legal framework in the EU	2
3. Legal framework in Spain	4
4. Legal framework in Portugal	6
5. First meeting of the Stakeholders Advisory Board.....	7
6. Conclusions	11

1. Introduction

The actions contemplated in the LIFE EGGSHELLENCE project are structured in five groups, being those of type "A" the preparatory actions of the project. The revision of legal barriers shown in this deliverable corresponds to Action A1. This action started in October 2020 and will end in January 2021. After this period, it will be active again from October 2023 to March 2024 (project end) in order to check any changes in legal barriers.

Within the EU, around one-quarter of eggs are processed and the global production of egg products is estimated to be almost 2.0 million tonnes of egg products, being 1.8 million tonnes produced in EU member countries. The egg processing industry in the EU is considered to be among, if not, the best in the world mainly due to the strict EU regulations and requirements of the industries. Equipment is constantly being improved not only to achieve higher capacities but also to stricter hygiene standards, and to extend to shelf life of both fresh and liquid products. Most manufacturers are certified according to ISO (International Organisation for Standardisation) and BRC (British Retail Consortium) standards.

The cost of eggs in the EU has increased considerably because of welfare regulations that do not exist in most third countries and where producers may have the additional advantage of lower feed costs. Other legislation, such as the Animal by-products regulation and salmonella control requirement also had adverse impacts on the EU egg products industry's competitiveness.

Life EggshellenCE will contribute to increase the competitiveness of the egg processing industry in the EU (initially in Spain and Portugal) as it implies a new valorisation of the bio-based calcium carbonate obtained from eggshells in ceramic tiles industry. This alternative processing route will avoid the landfill of eggshells (with costs varying from 25 to 200 €/ton depending on the region) and overcome several problems related with their high environmental impact. This information has been gathered thanks to the creation of the Stakeholders Advisory Board and its first online meeting (16/12/2020), in which egg processing companies and ceramic companies shared their interests and concerns (information included in section 5 of this deliverable). This meeting is the reason why this deliverable, which was initially expected for the 31/12/2020 has been postponed one month (31/01/2021).

It is important to note that legal framework has not changed in the period comprising the negotiation phase of Life EggshellenCE (June 2020), when this issue was studied, and January 2021 (delivery date of this document). This new valorisation route has no legal barriers in Spain and can be authorised in Portugal and in other EU countries as it will be discussed in sections 2 to 4 of this deliverable. During the execution of this project, legal framework at EU level and in Spain and Portugal will be continuously revised by project partners (ITC-AICE, UA and AGOTZAINA) and also by the Stakeholders Advisory Board (at least once a year there will be a meeting). Any changes will be communicated using a new deliverable in the second period of execution of this action (October 2023 to March 2024) and through the web page of Life EggshellenCE (expected on February-March 2021).

2. Legal framework in the EU

European Regulation (EC) N° 1069/2009 of the European Parliament and of the Council of 21 October 2009 lays down public health and animal health rules for animal by-products and derived products, in order to prevent and minimise risks to public and animal health arising from those products, and in particular to protect the safety of the food and feed chain.

Eggshells are classified into Category 3 of Animal by-products according to this Regulation (Article 10 (k), (ii)) as it can be seen in Annex 1 (full article) and Figure 1.

This regulation also establishes (Article 14 (h)) that they can be used under conditions determined by the competent authority which prevent risks arising to public and animal health as it can be seen in Annex 2 (full article) and Figure 2.

The use of eggshells in ceramic tile production does not involve any risk arising to public health as the bio-CaCO₃ obtained from the eggshells will be decomposed into CaO and CO₂ during the firing stage of ceramic tiles. Lately, the CaO will be combined with silica and alumina from the clay minerals (also part of the ceramic tile composition) to form crystalline phases in the ceramic wall tile. Therefore, if, as expected, the project is replicated in other EU countries apart from Spain and Portugal, ITC-AICE and UA will collaborate

with the companies or associations involved to provide the fundamental information to obtain the necessary permissions.

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- (h) blood, placenta, wool, feathers, hair, horns, hoof cuts and raw milk originating from live animals that did not show any signs of disease communicable through that product to humans or animals;
- (i) aquatic animals, and parts of such animals, except sea mammals, which did not show any signs of disease communicable to humans or animals;
- (j) animal by-products from aquatic animals originating from establishments or plants manufacturing products for human consumption;
- (k) the following material originating from animals which did not show any signs of disease communicable through that material to humans or animals:
 - (i) shells from shellfish with soft tissue or flesh;
 - (ii) the following originating from terrestrial animals:
 - hatchery by-products,
 - eggs,
 - egg by-products, including egg shells,

Figure 1. Part of Article 10 where eggshells are mentioned in Category 3 Animal by-products.

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- (iv) for the manufacturing of organic fertilisers or soil improvers, to be placed on the market in accordance with Article 32;
- (e) used for the production of raw petfood, to be placed on the market in accordance with Article 35;
- (f) composted or transformed into biogas;
- (g) in the case of material originating from aquatic animals, ensiled, composted or transformed into biogas;
- (h) in the case of shells from shellfish, other than those referred to in Article 2(2)(f), and egg shells, used under conditions determined by the competent authority which prevent risks arising to public and animal health;

Figure 2. Part of Article 14 where uses for eggshells are mentioned.

3. Legal framework in Spain

In the case of Spain, the use of eggshells is regulated by the Real Decreto 1528/2012. In this regulation, Article 12 clearly indicates that eggshells can be used as raw material in the manufacturing of products not destined to human or animal food, as it is the case of ceramic tiles. It can be seen in Annex 3 (full article) and in Figure 3.

Artículo 12. *Uso de conchas de moluscos y cáscaras de huevos de categoría 3.*

Además de los usos contemplados en el artículo 14 del Reglamento (CE) n.º 1069/2009, del Parlamento Europeo y del Consejo, de 21 de octubre se autorizan para los siguientes SANDACH los usos indicados a continuación, sin perjuicio de los requisitos establecidos en otras normas que sean de aplicación, en particular en la normativa ambiental y en su caso en el Real Decreto 824/2005, de 8 de julio, sobre productos fertilizantes:

1. Conchas de moluscos de categoría 3 distintas de las mencionadas en el artículo 2, apartado 2, letra f) del Reglamento (CE) n.º 1069/2009, del Parlamento Europeo y del Consejo, de 21 de octubre:

a) Uso como fertilizante o enmienda del suelo cuando provengan de establecimientos registrados según el Reglamento (CE) n.º 852/2004, del Parlamento Europeo y del Consejo, de 29 de abril de 2004, o el Reglamento (CE) n.º 853/2004, del Parlamento Europeo y del Consejo, de 29 de abril de 2004, y el tratamiento aplicado al producto permita descartar la presencia de riesgos para la salud pública o la salud animal.

b) Uso como materia prima para la elaboración de productos no destinados a la alimentación humana o animal

2. Cáscaras de huevo de categoría 3:

a) Aplicación directa a la tierra como fertilizante o enmienda en la propia explotación ganadera en la que se han producido, siempre que no existan motivos para sospechar la existencia de un riesgo de transmisión de enfermedades a las personas o los animales derivado de dicha aplicación.

b) Uso como fertilizante o enmienda del suelo cuando provengan de establecimientos registrados según el Reglamento (CE) n.º 853/2004, del Parlamento Europeo y del Consejo, de 29 de abril de 2004, y se descarte cualquier riesgo para la salud pública o la salud animal.

c) Uso como materia prima para la elaboración de productos no destinados a la alimentación humana o animal.

Figure 3. Article 12, indicating accepted uses of eggshells.

This fact has been confirmed by the Subdirección General de Sanidad e Higiene Animal y Trazabilidad, belonging to the Ministerio de Agricultura, Pesca y Alimentación, by the AESAN (Agencia Española de Seguridad Alimentaria y Nutrición) and by the Dirección General de Calidad y Educación Ambiental, by means of the letters included in Annex 4.

As the letter from the Dirección General de Calidad y Educación Ambiental mentioned the need to comply with all the requirements derived from the waste law, a clarification was demanded both to this organism and to the national organisms already in contact. In addition a clearer description of the administrative process to obtain authorisation for the use of eggshells in ceramic tiles was also necessary. To obtain this information required a lot of time and effort because of the difficulty in finding the appropriate interlocutor from the Regional Government of the Comunitat Valenciana. The problem was that different organisms were involved and it was not clear which was the organism in charge.

Both the Servicio de Seguridad y Control de la Producción Agraria de la Dirección General de Agricultura, Ganadería y Pesca (<https://agroambient.gva.es/es/web/ganaderia/seguretat-i-control-de-mitjans-de-produccio-ramadera>), and the Servicio de Residuos of the Dirección General de Calidad y Educación Ambiental (<https://agroambient.gva.es/es/web/calidad-ambiental/control-integrado-de-la-contaminacion>), the two of them depending of the Conselleria de Agricultura, were contacted.

The conclusions are as follows:

a) Category 3 eggshells (LER:020203) are regulated by Regulation (EC) No 1069/2009 of the European

Parliament and of the Council of 21 October 2009 (SANDACH) and therefore, in the aspects already regulated, are not included in the scope of application of Law 22/2011, of 28 July, on Waste and Contaminated Soil according to its article 2.b).

- b) Category 3 eggshells are considered as raw material for the production of products not intended for human or animal consumption according to article 12.2.c) of Royal Decree 1528/2012, of 8 November, which establishes the rules applicable to animal by-products and derived products not intended for human consumption.
- c) The important nuance is that they must be eggshells from Category 3 eggs, i.e. those intended for human consumption.
- d) Therefore, regarding the need to apply for authorisation, it is understood that as the use in question is provided for in the above-mentioned legislation, it would not be necessary to apply for authorisation. However, for its management, as well as for the transport, it may be subject to the SANDACH regulations.

ITC confirmed them that eggshells used in the project are Category 3, and for the clarification of its management and transport, the competent organism, which is the Servicio para la Seguridad y Control de la Producción Agrícola, was again consulted. This organism confirmed that:

- e) The first thing to be issued is a Commercial Document (blank model shown in Annex 5) in triplicate. It must be filled by the supplier of the shell (in this case AGOTZAINA), the transporter and EUROATOMIZADO as the destination.
- f) It must be the supplier who categorises the eggshell (the establishment must be registered in the RGSEAA as it is the case of AGOTZAINA and the rest of potential suppliers).
- g) Secondly, the transporter and the registration number of the vehicle used for the transport must be registered in the SANDACH Register of the Autonomous Community where the company's head office is located, and comply with the indications of the regulations for its activity (the vehicle must be watertight, with surfaces that are easy to clean and disinfect, carry the label identifying the SANDACH category being transported, always accompany the transport of SANDACH goods with its Commercial Document completed in full and signed, etc.).
- h) Finally, the destination company will receive the eggshell and its Commercial Document, which must be completed on arrival (date of reception, tons received,), sign, register the entry in its traceability records and keep the documentation for two years.

We confirm that the vehicles that will be used for the transportation of the bio-calcium carbonate to the ceramic companies will be registered in the SANDACH Register.

4. Legal framework in Portugal

In Portugal the conditions to use eggshells are those established at European level (Regulation (Ec) nº 1069/2009 of the European Parliament, Article 12) as indicated in the Esclarecimento Técnico (Technical Clarification) nº10/DGAV/2018 (DGVA - Direção-Geral de Alimentação e Veterinária – Directorate-General for Food and Veterinary). In this regulation, Article 12 clearly indicates that eggshells can be used, as raw material, in the manufacturing of products not destined to human or animal food, as it is the case of ceramic tiles upon authorization of the competent authority, in this case, DGVA.

DGVA informed us that to be able to use eggshell as a raw material in the ceramic tiles industry it is necessary to perform a heat pre-treatment to the eggshells capable of inactivating pathogenic microbiological agents that may be present. These treatments can be carried out in different ways, namely by immersion in boiling water for at least 3 minutes, or by placing the eggshells in the oven ensuring that they reach, at least, 70° C for about 2 minutes. This pre-treatment should be placed in the egg processing companies to prevent risks arising to public and animal health.



SEGURANÇA dos ALIMENTOS

ENCAMINHAMENTO DE CASCAS DE OVO GERADAS EM ESTABELECIMENTO INDUSTRIAL DE PASTELARIA E DE PANIFICAÇÃO



Esclarecimento Técnico nº 10 / DGAV / 2018

RESUMO - O presente esclarecimento destina-se à implementação a nível nacional de disposições para o encaminhamento de cascas de ovo geradas em estabelecimentos industriais de pastelaria e de panificação.

1. CLASSIFICAÇÃO E ENCAMINHAMENTO DE CASCAS DE OVO

As cascas de ovo são abrangidas pelo âmbito de aplicação do Regulamento (CE) n.º 1069/2009 de 21 de outubro, *que estabelece regras sanitárias relativas a subprodutos animais e produtos derivados não destinados ao consumo humano*, sendo classificadas como subprodutos animais de categoria 3.

O regulamento não prevê a eliminação de cascas de ovo através do circuito dos resíduos sólidos urbanos (RSU).

As mesmas podem ser eliminadas por incineração, co-incineração, ou utilizadas após processamento em unidade de processamento de subprodutos animais, ou numa unidade de compostagem ou de biogás. Podendo também as cascas de ovo, ser utilizadas em condições determinadas pela autoridade competente.

Figure 4. Technical Clarification of Portuguese Directorate-General for Food and Veterinary (DGAV).

5. First meeting of the Stakeholders Advisory Board

Within the framework of the project, an Advisory Board has been established in order to identify the needs and interests of the egg processing companies. The entities involved are associations of egg processing and ceramic companies as well as egg processing and ceramic companies that have shown their commitment to study the replication of the project. In addition, waste management authorities have been invited to be part of this board and to support the implementation of the solution developed in the project.

As part of the actions in which this Advisory Board is involved, a cross-sectorial dynamic was carried out (Figure 5, Figure 6), accompanied by some personal interviews, with many of the entities that make it up and the partners of the project, to discuss the problems of eggshell management and the impact that the project could have on both egg processing companies and ceramic companies.

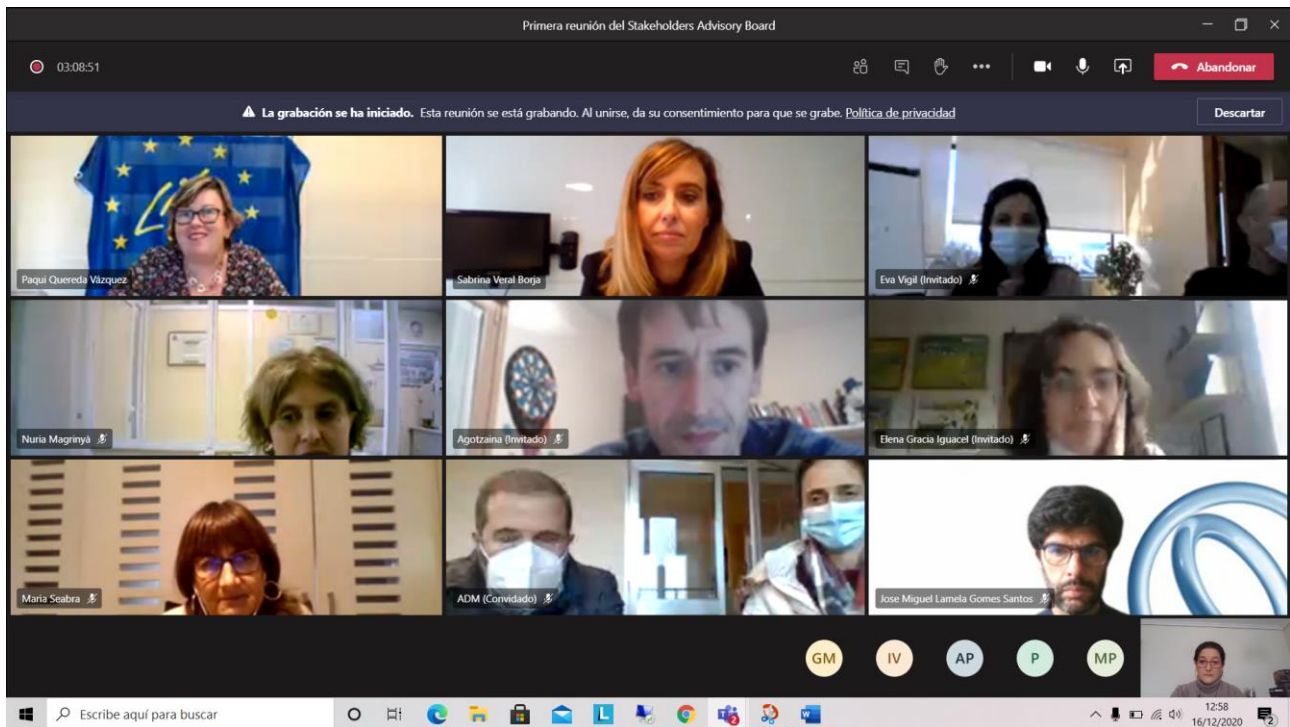


Figure 5. Screenshot of some of the attendants to the cross-sectorial dynamic.



Figure 6. Screenshot of some of the attendants to the cross-sectorial dynamic.

In the dynamic the main problems that egg processing companies have to face nowadays were identified:

1. Cost of eggshell management:

- a. In the waste management of egg processing companies, one variable that has a major impact is the price, which is set by the waste managers.

- b. In recent years, these prices have been increased annually, quarterly and even monthly. There is a perception on the part of the egg processing companies that there is an opacity in the setting of prices by the waste managers.
- c. Prices per tonne for eggshell management are increasingly higher, with significant differences also between Autonomous Communities. They can oscillate between €25/tonne and €200/tonne.

2. Financial support:

- a. Currently, there are no funds or subsidies for the management of eggshell waste. As a rule, there is no support for waste management in any sector, and not even for eggshell waste.
- b. However, there is decisive support in European and Spanish policies towards the transition to a circular economy, which provide financial support for innovation projects in this field.
- c. In this sense, innovation projects have previously been carried out to extract calcium carbonate and membrane, and membrane reuse practices have been detected for other sectors such as cosmetics.

3. Legislation:

- a. Eggshell waste management legislation, according to the egg processing companies, is not consistent and there are significant differences between the different Autonomous Communities.
- b. They even refer to the legislation as being contrary to environmental logic and, in this sense, they detect a lack of pressure from the federations for eggshell to be considered a by-product and to be clearly differentiated from other types of waste.
- c. On the other hand, in Portugal this waste has to be managed by authorised bodies, i.e. the egg processing sector needs an authorisation to manage the shell, while other sectors do not need any accreditation document.

4. Storage:

- a. One of the big problems in eggshell waste management is that the storage time should be as short as possible. The residues must be removed daily to prevent them from rotting with the consequent odour contamination.
- b. This problem can affect more in the summer, where storage must be carried out in refrigerated chambers with specific temperatures, which are paid for by the egg processing companies, which also implies important investments in these companies.

5. Scarcity of valorisation opportunities:

- a. In eggshell waste management, the membrane of the eggshell itself is used for the creation of collagen, which is present in many luxury products. However, this use of the membrane does not bring substantial income to the egg processing companies, being a residual quantity and, therefore, the valorisation is minimal.
- b. It is necessary to look for eggshell revalorization processes that do not require large investments and for which greater income could be obtained from sales, due to a higher demand.

Once identified the problems that egg processing companies are facing nowadays, the Life Eggshellence solution was presented to both egg processing and ceramic companies and the main pros and cons for the two types of companies were discussed in a second dynamic.

1. Opportunities for egg processing companies:

- a. **Improvement in the corporate image.** One of the major benefits that egg processing companies perceive from the application of the Life Eggshellence solution is the

improvement in the corporate image by implementing the circular economy through the industrial symbiosis between two industrial sectors.

- b. **Cost reduction.** A new business model will be developed for egg processing companies as suppliers to the ceramic industry, making waste management much cheaper.
- c. **Absence of environmental impact** in the treatment and subsequent use of eggshell.
- d. **Low investment.** The development of a prototype for the pre-treatment of eggshell, which will separate the membrane from the shell through a simple and low cost process. This prototype does not generate very large investments.

2. Threatens for egg processing companies:

- a. **Partial eggshell waste valorisation.** Egg processing companies believe that the solution could be more viable if the eggshell membrane could also be used in the same process. However, this is a minor drawback since the membrane makes up only 10-11% of the total eggshell. Even though, valorisation opportunities for the residual membrane will be studied through the networking with other projects.
- b. **Transport and processing costs.** The cost of transporting and treating eggshell to supply bio-calcium carbonate as a secondary raw material in the manufacture of wall tiles can be high depending on the location, since the ceramic industry is located in a cluster in the province of Castellón. This threat will be minimized by looking for other alternatives such as the use of eggshell in roof tiles and brick companies closer to the egg processing companies.
- c. **Granulometry of the treated eggshell.** It is important the granulometry of the material, so that the transport system can be truck type, and not tank type and, therefore, the solution does not become more expensive. This aspect will be studied later in the project.

3. Opportunities for ceramic companies:

- a. **Improvement in the corporate image.** Improvement in the corporate image, derived from the implementation of the concept of circular economy through industrial symbiosis between the two industrial sectors, in addition to being able to incorporate green eco-labelling and certificates of sustainability of the ceramic product.
- b. **Environmental benefits.** Improvement of the environmental benefit with the use of bio-calcium carbonate from the Life Cycle Analysis of the wall tiles.
- c. **Other types of ceramic companies.** There may be ceramic companies such as lightweight brick manufacturers that could consume the eggshell directly without processing. This will be studied in the near future in the replication actions.

4. Threatens for ceramic companies:

- a. **Cost of bio-calcium carbonate.** Regarding the price of calcium carbonate, it is very competitively priced (in Spain it is €30/tn) because there is an oversupply. This is a threat to the viability of the project, since, if the price of the solution is higher than the carbonate extracted in the traditional way, there is a high risk that there are no buyers willing to pay a higher price for the bio-calcium carbonate. This is a pre-identified risk and special attention is dedicated to it. The prototype is being built taking into account this risk and highly accurate costs will be calculated in the replicability strategy.
- b. **Characteristics of bio-calcium carbonate.** The Life Eggshellence bio-calcium carbonate should have the same characteristics as the solution on the market (mineral calcium carbonate). The optimum size of the bio-carbonate is not yet clear, initially it will be supplied in a larger size than the mineral carbonate in order not to make the process more expensive. There is still uncertainty as to whether bio-carbonate can generate defects, which will be checked in the near future in actions B2 and B3.

6. Conclusions

The study of the legal framework has allowed the following conclusions to be withdrawn:

- At EU level Eggshells generated by egg processing companies can be used under conditions determined by the competent authority which prevent risks arising to public and animal health.
- In the case of Spain eggshells can be used as raw material in the manufacturing of products not destined to human or animal food, as it is the case of ceramic tiles.
- In Portugal eggshell can be incinerated or used under conditions determined by the competent authority, which prevent risks arising to public and animal health. In this case, the competent authority is DGAV (Direção-Geral de Alimentação e Veterinária – Directorate-General for Food and Veterinary) that informed that only a heat pre-treatment is necessary, in the egg processing companies, to allow the use of the bio-based CaCO₃ from the eggshell as a raw material in ceramic tiles production.

Secondly, the meeting of the Stakeholders Advisory Board has highlighted the main difficulties that egg processing companies have to face nowadays and the pros and cons of the Life Eggshellence solution. Significant differences in treatment costs from one region to another as well as in regional legal barriers are the main problems for egg processing companies. On the other hand the Life Eggshellence solution is perceived as a real solution, as it will imply environmental benefits for both egg processing and ceramic companies and a cost reduction for egg processing companies. Some threatens of this solution have been identified (cost and quality of bio-calcium carbonate together with the absence of solutions for the membrane) and mitigation actions have been proposed that will be studied in the next period of the project.

ANNEX 1.

Article 10 of Regulation (Ec) No 1069/2009 of the European Parliament (eggshells highlighted in green). <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02009R1069-20191214>

Article 10

Category 3 material

Category 3 material shall comprise the following animal by-products:

(a) carcasses and parts of animals slaughtered or, in the case of game, bodies or parts of animals killed, and which are fit for human consumption in accordance with Community legislation, but are not intended for human consumption for commercial reasons;

(b) carcasses and the following parts originating either from animals that have been slaughtered in a slaughterhouse and were considered fit for slaughter for human consumption following an ante-mortem inspection or bodies and the following parts of animals from game killed for human consumption in accordance with Community legislation:

(i) carcasses or bodies and parts of animals which are rejected as unfit for human consumption in accordance with Community legislation, but which did not show any signs of disease communicable to humans or animals;

(ii) heads of poultry;

(iii) hides and skins, including trimmings and splitting thereof, horns and feet, including the phalanges and the carpus and metacarpus bones, tarsus and metatarsus bones, of:

— animals, other than ruminants requiring TSE testing, and

— ruminants which have been tested with a negative result in accordance with Article 6(1) of Regulation (EC) No 999/2001;

(iv) pig bristles;

(v) feathers;

(c) animal by-products from poultry and lagomorphs slaughtered on the farm as referred to in Article 1(3)(d) of Regulation (EC) No 853/2004, which did not show any signs of disease communicable to humans or animals;

(d) blood of animals which did not show any signs of disease communicable through blood to humans or animals obtained from the following animals that have been slaughtered in a slaughterhouse after having been considered fit for slaughter for human consumption following an ante-mortem inspection in accordance with Community legislation:

(i) animals other than ruminants requiring TSE testing; and

(ii) ruminants which have been tested with a negative result in accordance with Article 6(1) of Regulation (EC) No 999/2001;

- (e) animal by-products arising from the production of products intended for human consumption, including degreased bones, greaves and centrifuge or separator sludge from milk processing;
- (f) products of animal origin, or foodstuffs containing products of animal origin, which are no longer intended for human consumption for commercial reasons or due to problems of manufacturing or packaging defects or other defects from which no risk to public or animal health arise;
- (g) petfood and feedingstuffs of animal origin, or feedingstuffs containing animal by-products or derived products, which are no longer intended for feeding for commercial reasons or due to problems of manufacturing or packaging defects or other defects from which no risk to public or animal health arises;
- (h) blood, placenta, wool, feathers, hair, horns, hoof cuts and raw milk originating from live animals that did not show any signs of disease communicable through that product to humans or animals;
- (i) aquatic animals, and parts of such animals, except sea mammals, which did not show any signs of disease communicable to humans or animals;
- (j) animal by-products from aquatic animals originating from establishments or plants manufacturing products for human consumption;
- (k) the following material originating from animals which did not show any signs of disease communicable through that material to humans or animals:
- (i) shells from shellfish with soft tissue or flesh;
 - (ii) the following originating from terrestrial animals:
 - hatchery by-products,
 - eggs,
 - egg by-products, including egg shells.
 - (iii) day-old chicks killed for commercial reasons;
- (l) aquatic and terrestrial invertebrates other than species pathogenic to humans or animals;
- (m) animals and parts thereof of the zoological orders of Rodentia and Lagomorpha, except Category 1 material as referred to in Article 8(a)(iii), (iv) and (v) and Category 2 material as referred to in Article 9(a) to (g);
- (n) hides and skins, hooves, feathers, wool, horns, hair and fur originating from dead animals that did not show any signs of disease communicable through that product to humans or animals, other than those referred to in point (b) of this Article;
- (o) adipose tissue from animals which did not show any signs of disease communicable through that material to humans or animals, which were slaughtered in a slaughterhouse and which were considered fit for slaughter for human consumption following an ante-mortem inspection in accordance with Community legislation;
- (p) catering waste other than as referred to in Article 8(f).

ANNEX 2.

Article 14 of Regulation (Ec) No 1069/2009 of the European Parliament (alternative use of eggshells highlighted in green).

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02009R1069-20191214>

Article 14

Disposal and use of Category 3 material

Category 3 material shall be:

- (a) disposed of as waste by incineration, with or without prior processing;
- (b) recovered or disposed of by co-incineration, with or without prior processing, if the Category 3 material is waste;
- (c) disposed of in an authorised landfill, following processing;
- (d) processed, except in the case of Category 3 material which has changed through decomposition or spoilage so as to present an unacceptable risk to public or animal health, through that product, and used:
 - (i) for the manufacturing of feed for farmed animals other than fur animals, to be placed on the market in accordance with Article 31, except in the case of material referred to in Article 10(n), (o) and (p);
 - (ii) for the manufacturing of feed for fur animals, to be placed on the market in accordance with Article 36;
 - (iii) for the manufacturing of pet food, to be placed on the market in accordance with Article 35; or
 - (iv) for the manufacturing of organic fertilisers or soil improvers, to be placed on the market in accordance with Article 32;
- (e) used for the production of raw petfood, to be placed on the market in accordance with Article 35;
- (f) composted or transformed into biogas;
- (g) in the case of material originating from aquatic animals, ensiled, composted or transformed into biogas;
- (h) in the case of shells from shellfish, other than those referred to in Article 2(2)(f), and egg shells, used under conditions determined by the competent authority which prevent risks arising to public and animal health;**
- (i) used as a fuel for combustion with or without prior processing;
- (j) used for the manufacture of derived products referred to in Articles 33, 34 and 36 and placed on the market in accordance with those Articles;
- (k) in the case of catering waste referred to in Article 10(p) processed by pressure sterilisation or by processing methods referred to in point (b) of the first subparagraph of Article 15(1) or composted or transformed into biogas; or

(l) applied to land without processing, in the case of raw milk, colostrum and products derived therefrom, which the competent authority does not consider to present a risk of any disease communicable through those products to humans or animals.

ANNEX 3.

Article 12 of Real Decreto 1528/2012 (use of eggshells highlighted in green).

<https://www.boe.es/buscar/act.php?id=BOE-A-2012-14165&p=20170315&tn=1#a12>

7. Artículo 12. Uso de conchas de moluscos y cáscaras de huevos de categoría 3.

Además de los usos contemplados en el artículo 14 del Reglamento (CE) n.º 1069/2009, del Parlamento Europeo y del Consejo, de 21 de octubre se autorizan para los siguientes SANDACH los usos indicados a continuación, sin perjuicio de los requisitos establecidos en otras normas que sean de aplicación, en particular en la normativa ambiental y en su caso en el Real Decreto 824/2005, de 8 de julio, sobre productos fertilizantes:

1. Conchas de moluscos de categoría 3 distintas de las mencionadas en el artículo 2, apartado 2, letra f) del Reglamento (CE) n.º 1069/2009, del Parlamento Europeo y del Consejo, de 21 de octubre:

a) Uso como fertilizante o enmienda del suelo cuando provengan de establecimientos registrados según el Reglamento (CE) n.º 852/2004, del Parlamento Europeo y del Consejo, de 29 de abril de 2004, o el Reglamento (CE) n.º 853/2004, del Parlamento Europeo y del Consejo, de 29 de abril de 2004, y el tratamiento aplicado al producto permita descartar la presencia de riesgos para la salud pública o la salud animal.

b) Uso como materia prima para la elaboración de productos no destinados a la alimentación humana o animal

2. Cáscaras de huevo de categoría 3:

a) Aplicación directa a la tierra como fertilizante o enmienda en la propia explotación ganadera en la que se han producido, siempre que no existan motivos para sospechar la existencia de un riesgo de transmisión de enfermedades a las personas o los animales derivado de dicha aplicación.

b) Uso como fertilizante o enmienda del suelo cuando provengan de establecimientos registrados según el Reglamento (CE) n.º 853/2004, del Parlamento Europeo y del Consejo, de 29 de abril de 2004, y se descarte cualquier riesgo para la salud pública o la salud animal.

c) Uso como materia prima para la elaboración de productos no destinados a la alimentación humana o animal.

ANNEX 4.

Letters confirming the absence of legal barriers in Spain.



MINISTERIO
DE AGRICULTURA, PESCA Y
ALIMENTACION

BEATRIZ MUÑOZ HURTADO
SUBDIRECTORA GENERAL
DE SANIDAD E HIGIENE ANIMAL Y
TRAZABILIDAD

El laboratorio de composiciones cerámicas del Instituto de Tecnología Cerámica se ha puesto en contacto con la Subdirección General Sanidad Higiene Animal y Trazabilidad, perteneciente al Ministerio de Agricultura, Pesca y Alimentación, en relación al proyecto "Eggshell: a potential raw material for ceramic wall tiles", que pretende ser financiado en el marco de los programas LIFE de la UE. Este proyecto tiene como objetivo principal demostrar la viabilidad técnica, económica y medioambiental del empleo de la cáscara del huevo como materia prima para la fabricación de baldosas cerámicas, en sustitución del carbonato cálcico de origen mineral.

Es un proyecto que se ajusta al contexto del pacto verde europeo mediante una estrategia de economía circular que pretende valorizar un subproducto animal como fuente de carbonato cálcico en lugar de eliminarlo.

Sin embargo, desde un punto de vista sanitario hay que tener en cuenta ciertos aspectos.

- Únicamente pueden emplearse como materia prima las cáscaras de huevos categorizadas como material de la categoría 3 de según la normativa de subproductos animales no destinados al consumo humano (SANDACH).
- La gestión de las membranas, una vez se separan de las cáscaras previamente a la utilización de las mismas, debe asimismo realizarse de conformidad con las disposiciones establecidas en esa normativa, por tener igualmente la consideración de subproducto animal.
- La introducción en el mercado de estos productos derivados debe garantizar el control de los riesgos para la salud pública y la salud animal mediante un aprovisionamiento seguro, un tratamiento seguro, cuando el aprovisionamiento seguro no permita un control suficiente, o bien mediante la verificación de que los productos se utilizan únicamente para un uso final seguro, de conformidad con los artículos 37, 38 y 39 del reglamento (CE) nº 1069/2009, de 21 de octubre de 2009.

Bajo estas condiciones y de conformidad con el artículo 12 punto 2 apartado c del real decreto 1528/2012, de 8 de noviembre, por el que se establecen las normas aplicables a los subproductos animales y los productos derivados no destinados al consumo humano, el cual permite expresamente el empleo de esta materia prima para la elaboración de productos no destinados a la alimentación humana o animal (como sería el caso de la fabricación de baldosas cerámicas) expresamos, como administración competente en subproductos animales desde el punto de vista de la sanidad animal, nuestro apoyo a la ejecución de este proyecto, estando igualmente interesados en que se nos trasladen los resultados que se vayan obteniendo a lo largo de la ejecución del proyecto y que se nos mantenga informados.

CORREO ELECTRONICO

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CSV : GEN-1991-00fb-7d7b-1337-4e44-343b-f8be-128c

DIRECCIÓN DE VALIDACIÓN : <https://sede.administracion.gob.es/pagSedeFront/servicios/consultaCSV.htm>

FIRMANTE(1) : BEATRIZ MUÑOZ HURTADO | FECHA : 21/05/2020 13:40 | NOTAS : F



Instituto de Tecnología Cerámica
Campus Universitario Riu Sec
Av. Vicent Sos Baynat s/n
12006 Castellón

Madrid, 25 de mayo de 2020

Estimados Sres:

La Agencia Española de Seguridad Alimentaria y Nutrición (AESAN), que yo represento, integra y desempeña, en el marco competencial de la Administración General del Estado, las funciones relacionadas con la seguridad alimentaria y la nutrición saludable. Tiene entre sus funciones promover la seguridad alimentaria, ofreciendo garantías e información objetiva a los consumidores y agentes económicos del sector alimentario español.

El Instituto de Tecnología Cerámica, ITC-AICE, me ha puesto en conocimiento del proyecto LIFE EGGSHELLENCE- A potential raw material for ceramic wall tiles" (LIFE18 ENV/ES/000121) para ser financiado por el programa LIFE de la UE, dentro del sub-programa "Medio Ambiente y Eficiencia de Recursos". Este proyecto tiene por objetivo demostrar la viabilidad técnica del uso de cáscara de huevo como materia prima secundaria en la composición de baldosas cerámicas, valorizando así un importante residuo procedente de las empresas de ovoproductos.

La cáscara de huevo procedente de material de categoría 3 de acuerdo con el Reglamento 1069/2009, de 21 de octubre de 2009, por el que se establecen las normas sanitarias aplicables a los subproductos animales y los productos derivados no destinados al consumo humano y el Reglamento (UE) n.º 142/2011 de la Comisión, de 25 de febrero de 2011, por el que se establecen las disposiciones de aplicación del Reglamento (CE) n.º 1069/2009, y en virtud del artículo 14 de este reglamento, plasmado en la legislación nacional a través del artículo 12 del Real Decreto 1528/2012, puede emplearse como materia prima para la elaboración de productos no destinados a la alimentación humana o animal, como es el caso de las baldosas cerámicas.

Para concluir, expresamos nuestro apoyo al proyecto y a la ejecución del mismo.

Atentamente,

GARCIA
PEREZ
MARTA
NATIVIDAD
- 09738493V
Fecha: 2020.05.25
17:56:17 +02'00'

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presesan@mscbs.es

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28071 MADRID
TEL.: 91 338 03 89
91 338 08 75
FAX: 91 338 03 75

Estimados Sres:

La Dirección General de Calidad y Educación Ambiental ha sido informada del proyecto LIFE EGGSHELLENC)- A potential raw material for ceramic wall tiles" (LIFE18 ENV/ES/000121, propuesto por el Instituto de Tecnología Cerámica, ITC-AICE, para ser financiado por el programa LIFE de la UE, dentro del sub-programa "Medio Ambiente y Eficiencia de Recursos", cuyo objetivo es demostrar la viabilidad técnica del uso de cáscara de huevo como materia prima secundaria en la composición de baldosas cerámicas, valorizando así un importante residuo procedente de las empresas ovo-productoras.

De conformidad con el artículo 12 punto 2 apartado c del Real Decreto 1528/2012, de 8 de noviembre, por el que se establecen las normas aplicables a los subproductos animales y los productos derivados no destinados al consumo humano, se permite expresamente el uso de cáscaras de huevo de categoría 3 como materia prima para la elaboración de productos no destinados a la alimentación humana o animal, sin perjuicio de los requisitos establecidos en otras normas que sean de aplicación, en particular en la normativa ambiental.

La utilización de cáscaras de huevo como sustitutivo de otras materias primas (carbonato cálcico) en la fabricación de baldosas cerámicas tiene carácter de valorización (material) de residuos conforme a la definición dada en el artículo 3.15 de la Directiva 2008/98/CE del Parlamento Europeo y del Consejo, de 19 de noviembre de 2008, sobre los residuos y por la que se derogan determinadas Directivas (Directiva marco de los residuos), siendo además coherente con la jerarquía de residuos establecida en su artículo 4.

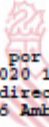
La Ley 22/2011, de 28 de julio, de residuos y suelos contaminados, mediante la cual se incorpora al Derecho español la Directiva 2008/98/CE, establece el régimen de autorización al que quedan sometidas tanto las instalaciones donde vayan a desarrollarse operaciones de tratamiento de residuos, como las personas, físicas o jurídicas, que pretenden realizar tales operaciones.

En este contexto no se observa, *a priori*, impedimento legal alguno que informe desfavorablemente la propuesta planteada por el ITC-AICE para el proyecto de valorización (material) de cascaras de huevo en el proceso de fabricación de baldosas cerámicas, siempre que se disponga de las correspondientes autorizaciones administrativas en materia de residuos.

Finalmente, esta dirección general manifiesta su voluntad de colaboración, en el ámbito de sus competencias, en la resolución de cualquier problema legal durante su desarrollo, al tiempo de expresar su interés por conocer los resultados del proyecto y su aplicación.

Atentamente,

En València a 26 de mayo de 2020.



Firmado por Joan Piquer Huerga el
27/05/2020 15:34:33
Cargo: director general de Qualitat i
Educació Ambiental

ANNEX 5.

Commercial document to be filled for the delivery, transport and use of the bio-calcium carbonate.