Commission Regulation (EU) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance)

# COMMISSION REGULATION (EU) No 10/2011

of 14 January 2011

on plastic materials and articles intended to come into contact with food

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 1935/2004 of the European Parliament and of the Council of 27 October 2004 on materials and articles intended to come into contact with food and repealing Directives 80/590/EEC and  $89/109/EEC^{(1)}$ , and in particular Article 5(1)(a), (c), (d), (e), (f), (h), (i) and (j) thereof,

After consulting the European Food Safety Authority,

Whereas:

- (1) Regulation (EC) No 1935/2004 lays down the general principles for eliminating the differences between the laws of the Member States as regards food contact materials. Article 5(1) of that Regulation provides for the adoption of specific measures for groups of materials and articles and describes in detail the procedure for the authorisation of substances at EU level when a specific measure provides for a list of authorised substances.
- (2) This Regulation is a specific measure within the meaning of Article 5(1) of Regulation (EC) No 1935/2004. This Regulation should establish the specific rules for plastic materials and articles to be applied for their safe use and repeal Commission Directive 2002/72/EC of 6 August 2002 on plastic materials and articles intended to come into contact with foodstuffs<sup>(2)</sup>.
- (3) Directive 2002/72/EC sets out basic rules for the manufacture of plastic materials and articles. The Directive has been substantially amended 6 times. For reasons of clarity the text should be consolidated and redundant and obsolete parts removed.
- (4) In the past Directive 2002/72/EC and its amendments have been transposed into national legislation without any major adaptation. For transposition into national law usually a time period of 12 months is necessary. In case of amending the lists of monomers and additives in order to authorise new substances this transposition time leads to a retardation of the authorisation and thus slows down innovation. Therefore it seems appropriate to adopt rules on plastic materials and articles in form of a Regulation directly applicable in all Member States.

- (5) Directive 2002/72/EC applies to materials and articles purely made of plastics and to plastic gaskets in lids. In the past these were the main use of plastics on the market. However, in recent years, besides materials and articles purely made of plastics, plastics are also used in combination with other materials in so called multi-material multi-layers. Rules on the use of vinyl chloride monomer laid down in Council Directive 78/142/EEC of 30 January 1978 on the approximation of the laws of the Member States relating to materials and articles which contain vinyl chloride monomer and are intended to come into contact with foodstuffs<sup>(3)</sup> already apply to all plastics. Therefore it seems appropriate to extend the scope of this Regulation to plastic layers in multi-material multi-layers.
- (6) Plastic materials and articles may be composed of different layers of plastics held together by adhesives. Plastic materials and articles may also be printed or coated with an organic or inorganic coating. Printed or coated plastic materials and articles as well as those held together by adhesives should be within the scope of the Regulation. Adhesives, coatings and printing inks are not necessarily composed of the same substances as plastics. Regulation (EC) No 1935/2004 foresees that for adhesives, coatings and printing inks specific measures can be adopted. Therefore plastic materials and articles that are printed, coated or held together by adhesives should be allowed to contain in the printing, coating or adhesive layer other substances than those authorised at EU level for plastics. Those layers may be subject to other EU or national rules.
- (7) Plastics as well as ion exchange resins, rubbers and silicones are macromolecular substances obtained by polymerisation processes. Regulation (EC) No 1935/2004 foresees that for ion exchange resins, rubbers and silicones specific measures can be adopted. As those materials are composed of different substances than plastics and have different physico-chemical properties specific rules for them need to apply and it should be made clear that they are not within the scope of this Regulation.
- (8) Plastics are made of monomers and other starting substances which are chemically reacted to a macromolecular structure, the polymer, which forms the main structural component of the plastics. To the polymer additives are added to achieve defined technological effects. The polymer as such is an inert high molecular weight structure. As substances with a molecular weight above 1 000 Da usually cannot be absorbed in the body the potential health risk from the polymer itself is minimal. Potential health risk may occur from non- or incompletely reacted monomers or other starting substances or from low molecular weight additives which are transferred into food via migration from the plastic food contact material. Therefore monomers, other starting substances and additives should be risk assessed and authorised before their use in the manufacture of plastic materials and articles.
- (9) The risk assessment of a substance to be performed by the European Food Safety Authority (hereinafter the Authority) should cover the substance itself, relevant impurities and foreseeable reaction and degradation products in the intended use. The risk assessment should cover the potential migration under worst foreseeable conditions of use and the toxicity. Based on the risk assessment the authorisation should if

necessary set out specifications for the substance and restrictions of use, quantitative restrictions or migration limits to ensure the safety of the final material or article.

- (10) No rules have yet been set out at EU level for the risk assessment and use of colorants in plastics. Therefore their use should remain subject to national law. That situation should be reassessed at a later stage.
- (11) Solvents used in the manufacture of plastics to create a suitable reaction environment are expected to be removed in the manufacturing process as they are usually volatile. No rules have yet been set out at EU level for the risk assessment and use of solvents in the manufacture of plastics. Therefore their use should remain subject to national law. That situation should be reassessed at a later stage.
- (12) Plastics can also be made of synthetic or natural occurring macromolecular structures which are chemically reacted with other starting substances to create a modified macromolecule. Synthetic macromolecules used are often intermediate structures which are not fully polymerised. Potential health risk may occur from the migration of nonor incompletely reacted other starting substances used to modify the macromolecule or an incompletely reacted macromolecule. Therefore the other starting substances as well as the macromolecules used in the manufacture of modified macromolecules should be risk assessed and authorised before their use in the manufacture of plastic materials and articles.
- (13) Plastics can also be made by micro-organisms that create macromolecular structures out of starting substances by fermentation processes. The macromolecule is then either released to a medium or extracted. Potential health risk may occur from the migration of non- or incompletely reacted starting substances, intermediates or by-products of the fermentation process. In this case the final product should be risk assessed and authorised before its use in the manufacture of plastic materials and articles.
- (14) Directive 2002/72/EC contains different lists for monomers or other starting substances and for additives authorised for the manufacture of plastic materials and articles. For monomers, other starting substances and additives the Union list is now complete, this means that only substances authorised at EU level may be used. Therefore a separation of monomers or other starting substances and of additives in separate lists due to their authorisation status is no longer necessary. As certain substances can be used both as monomer or other starting substances and as additive for reasons of clarity they should be published in one list of authorised substances indicating the authorised function.
- (15) Polymers can not only be used as main structural component of plastics but also as additives achieving defined technological effects in the plastic. If such a polymeric additive is identical to a polymer that can form the main structural component of a plastic material the risk from polymeric additive can be regarded as evaluated if the monomers have already been evaluated and authorised. In such a case it should not be necessary to authorise the polymeric additive but it could be used on the basis of the authorisation of its monomers and other starting substances. If such a polymeric additive is not identical to a polymer that can form the main structural component of a plastic material then the risk of the polymeric additive can not be regarded as evaluated by evaluation of the monomers. In such a case the polymeric additive should be risk

assessed as regards its low molecular weight fraction below 1 000 Da and authorised before its use in the manufacture of plastic materials and articles.

- (16) In the past no clear differentiation has been made between additives that have a function in the final polymer and polymer production aids (PPA) that only exhibit a function in the manufacturing process and are not intended to be present in the final article. Some substances acting as PPA had already been included in the incomplete list of additives in the past. These PPA should remain in the Union list of authorised substances. However, it should be made clear that the use of other PPA will remain possible, subject to national law. That situation should be reassessed at a later stage.
- (17) The Union list contains substances authorised to be used in the manufacture of plastics. Substances such as acids, alcohols and phenols can also occur in form of salts. As the salts usually are transformed in the stomach to acid, alcohol or phenol the use of salts with cations that have undergone a safety evaluation should in principle be authorised together with the acid, alcohol or phenol. In certain cases, where the safety assessment indicates concerns on the use of the free acids, only the salts should be authorised by indicating in the list the name as '... acid(s), salts'.
- (18) Substances used in the manufacture of plastic materials or articles may contain impurities originating from their manufacturing or extraction process. These impurities are non-intentionally added together with the substance in the manufacture of the plastic material (non-intentionally added substance – NIAS). As far as they are relevant for the risk assessment the main impurities of a substance should be considered and if necessary be included in the specifications of a substance. However it is not possible to list and consider all impurities in the authorisation. Therefore they may be present in the material or article but not included in the Union list.
- (19) In the manufacture of polymers substances are used to initiate the polymerisation reaction such as catalysts and to control the polymerisation reaction such as chain transfer, chain extending or chain stop reagents. These aids to polymerisation are used in minute amounts and are not intended to remain in the final polymer. Therefore they should at this point of time not be subject to the authorisation procedure at EU level. Any potential health risk in the final material or article arising from their use should be assessed by the manufacturer in accordance with internationally recognised scientific principles on risk assessment.
- (20) During the manufacture and use of plastic materials and articles reaction and degradation products can be formed. These reaction and degradation products are non-intentionally present in the plastic material (NIAS). As far as they are relevant for the risk assessment the main reaction and degradation products of the intended application of a substance should be considered and included in the restrictions of the substance. However it is not possible to list and consider all reaction and degradation products in the authorisation. Therefore they should not be listed as single entries in the Union list. Any potential health risk in the final material or article arising from reaction and degradation products should be assessed by the manufacturer in accordance with internationally recognised scientific principles on risk assessment.

- (21) Prior to the establishment of the Union list of additives, other additives than those authorised at EU level could be used in the manufacture of plastics. For those additives which were permitted in the Member States, the time limit for the submission of data for their safety evaluation by the Authority with a view to their inclusion in the Union list expired on 31 December 2006. Additives for which a valid application was submitted within this time limit were listed in a provisional list. For certain additives on the provisional list a decision on their authorisation at EU level has not yet been taken. For those additives, it should be possible to continue to be used in accordance with national law until their evaluation is completed and a decision is taken on their inclusion in the Union list.
- (22) When an additive included in the provisional list is inserted in the Union list or when it is decided not to include it in the Union list, that additive should be removed from the provisional list of additives.
- (23) New technologies engineer substances in particle size that exhibit chemical and physical properties that significantly differ from those at a larger scale, for example, nanoparticles. These different properties may lead to different toxicological properties and therefore these substances should be assessed on a case-by-case basis by the Authority as regards their risk until more information is known about such new technology. Therefore it should be made clear that authorisations which are based on the risk assessment of the conventional particle size of a substance do not cover engineered nanoparticles.
- (24)Based on the risk assessment the authorisation should if necessary set out specific migration limits to ensure the safety of the final material or article. If an additive that is authorised for the manufacture of plastic materials and articles is at the same time authorised as food additive or flavouring substance it should be ensured that the release of the substance does not change the composition of the food in an unacceptable way. Therefore the release of such a dual use additive or flavouring should not exhibit a technological function on the food unless such a function is intended and the food contact material complies with the requirements on active food contact materials set out in Regulation (EC) No 1935/2004 and Commission Regulation (EC) No 450/2009 of 29 May 2009 on active and intelligent materials and articles intended to come into contact with food<sup>(4)</sup>. The requirements of Regulations (EC) No 1333/2008 of the European Parliament and of the Council of 16 December 2008 on food additives<sup>(5)</sup> or (EC) No 1334/2008 of the European Parliament and of the Council of 16 December 2008 on flavourings and certain food ingredients with flavouring properties for use in and on foods and amending Council Regulation (EEC) No 1601/91, Regulations (EC) No 2232/96 and (EC) No 110/2008 and Directive 2000/13/EC<sup>(6)</sup> should be respected where applicable.
- (25) According to Article 3(1)(b) of Regulation (EC) No 1935/2004 the release of substances from food contact materials and articles should not bring about unacceptable changes in the composition of the food. According to good manufacturing practice it is feasible to manufacture plastic materials in such a way that they are not releasing more than 10 mg of substances per 1 dm<sup>2</sup> of surface area of the plastic material. If the risk

assessment of an individual substance is not indicating a lower level, this level should be set as a generic limit for the inertness of a plastic material, the overall migration limit. In order to achieve comparable results in the verification of compliance with the overall migration limit, testing should be performed under standardised test conditions including testing time, temperature and test medium (food simulant) representing worst foreseeable conditions of use of the plastic material or article.

- (26) The overall migration limit of 10 mg per 1 dm<sup>2</sup> results for a cubic packaging containing 1kg of food to a migration of 60 mg per kg food. For small packaging where the surface to volume ratio is higher the resulting migration into food is higher. For infants and small children which have a higher consumption of food per kilogram bodyweight than adults and do not yet have a diversified nutrition, special provisions should be set in order to limit the intake of substances migrating from food contact materials. In order to allow also for small volume packaging the same protection as for high volume packaging, the overall migration limit for food contact materials that are dedicated for packaging foods for infants and small children should be linked to the limit in food and not to the surface area of the packaging.
- (27)In recent years plastic food contact materials are being developed that do not only consist of one plastic but combine up to 15 different plastic layers to attain optimum functionality and protection of the food, while reducing packaging waste. In such a plastic multi-layer material or article, layers may be separated from the food by a functional barrier. This barrier is a layer within food contact materials or articles preventing the migration of substances from behind that barrier into the food. Behind a functional barrier, non-authorised substances may be used, provided they fulfil certain criteria and their migration remains below a given detection limit. Taking into account foods for infants and other particularly susceptible persons, as well as the large analytical tolerance of the migration analysis, a maximum level of 0.01 mg/kg in food should be established for the migration of a non-authorised substance through a functional barrier. Substances that are mutagenic, carcinogenic or toxic to reproduction should not be used in food contact materials or articles without previous authorisation and should therefore not be covered by the functional barrier concept. New technologies that engineer substances in particle size that exhibit chemical and physical properties that significantly differ from those at a larger scale, for example, nanoparticles, should be assessed on a case-by-case basis as regards their risk until more information is known about such new technology. Therefore, they should not be covered by the functional barrier concept.
- (28) In recent years food contact materials and articles are being developed that consist of a combination of several materials to achieve optimum functionality and protection of the food while reducing packaging waste. In these multi-material multi-layer materials and articles plastic layers should comply with the same compositional requirements as plastic layers which are not combined with other materials. For plastic layers in a multi-material multi-layer which are separated from the food by a functional barrier the functional barrier concept should apply. As other materials are combined with the plastic layers and for these other materials specific measures are not yet adopted at EU level it is not yet possible to set out requirements for the final multi-material multi-layer

materials and articles. Therefore specific migration limits and the overall migration limit should not be applicable except for vinyl chloride monomer for which such a restriction is already in place. In the absence of a specific measure at EU level covering the whole multi-material multi-layer material or article Member States may maintain or adopt national provisions for these materials and articles provided they comply with the rules of the Treaty.

- (29) Article 16(1) of Regulation (EC) No 1935/2004 provides that materials and articles covered by specific measures be accompanied by a written declaration of compliance stating that they comply with the rules applicable to them. To strengthen the coordination and responsibility of the suppliers at each stage of manufacture, including that of the starting substances, the responsible persons should document the compliance with the relevant rules in a declaration of compliance which is made available to their customers.
- (30) Coatings, printing inks and adhesives are not yet covered by a specific EU legislation and therefore not subject to the requirement of a declaration of compliance. However, for coatings, printing inks and adhesives to be used in plastic materials and articles adequate information should be provided to the manufacturer of the final plastic article that would enable him to ensure compliance for substances for which migration limits have been established in this Regulation.
- (31) Article 17(1) of Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety<sup>(7)</sup> requires the food business operator to verify that foods are compliant with the rules applicable to them. To this end and subject to the requirement of confidentiality, food business operators should be given access to the relevant information to enable them to ensure that the migration from the materials and articles to food complies with the specifications and restrictions laid down in food legislation.
- (32) At each stage of manufacture, supporting documentation, substantiating the declaration of compliance, should be kept available for the enforcement authorities. Such demonstration of compliance may be based on migration testing. As migration testing is complex, costly and time consuming it should be admissible that compliance can be demonstrated also by calculations, including modelling, other analysis, and scientific evidence or reasoning if these render results which are at least as severe as the migration testing. Test results should be regarded as valid as long as formulations and processing conditions remain constant as part of a quality assurance system.
- (33) When testing articles not yet in contact with food, for certain articles, such as films or lids, it is often not feasible to determine the surface area that is in contact with a defined volume of food. For these articles specific rules should be set out for verification of compliance.
- (34) The setting of migration limits takes into account a conventional assumption that 1kg of food is consumed daily by a person of 60 kg bodyweight and that the food is packaged in a cubic container of 6 dm<sup>2</sup> surface area releasing the substance. For very small and very large containers the real surface area to volume of packaged food is varying a lot

from the conventional assumption. Therefore, their surface area should be normalised before comparing testing results with migration limits. These rules should be reviewed when new data on food packaging uses become available.

- (35) The specific migration limit is a maximum permitted amount of a substance in food. This limit should ensure that the food contact material does not pose a risk to health. It should be ensured by the manufacturer that materials and articles not yet in contact with food will respect these limits when brought into contact with food under the worst foreseeable contact conditions. Therefore compliance of materials and articles not yet in contact with food should be assessed and the rules for this testing should be set out.
- (36) Food is a complex matrix and therefore the analysis of migrating substances in food may pose analytical difficulties. Therefore test media should be assigned that simulate the transfer of substances from the plastic material into food. They should represent the major physico-chemical properties exhibited by food. When using food simulants standard testing time and temperature should reproduce, as far as possible, the migration which may occur from the article into the food.
- (37) For determining the appropriate food simulant for certain foods the chemical composition and the physical properties of the food should be taken into account. Research results are available for certain representative foods comparing migration into food with migration into food simulants. On the basis of the results, food simulants should be assigned. In particular, for fat containing foods the result obtained with food simulant may in certain cases significantly overestimate migration into food. In these cases it should be foreseen that the result in food simulant is corrected by a reduction factor.
- (38) The exposure to substances migrating from food contact materials was based on the conventional assumption that a person consumes daily 1 kg of food. However, a person ingests at most 200 g of fat on a daily basis. For lipophilic substances that only migrate into fat this should be taken into consideration. Therefore a correction of the specific migration by a correction factor applicable to lipophilic substances in accordance with the opinion of the Scientific Committee on Food (SCF)<sup>(8)</sup> and the opinion of the Authority<sup>(9)</sup> should be foreseen.
- (39) Official control should establish testing strategies which allow the enforcement authorities to perform controls efficiently making best use of available resources. Therefore it should be admissible to use screening methods for checking compliance under certain conditions. Non-compliance of a material or article should be confirmed by a verification method.
- (40) Basic rules on migration testing should be set out in this Regulation. As migration testing is a very complex issue, these basic rules can, however, not cover all foreseeable cases and details necessary for performing the testing. Therefore a EU guidance document should be established, dealing with more detailed aspects of the implementation of the basic migration testing rules.
- (41) The updated rules on food simulants and migration testing provided by this Regulation will supersede those in Directive 78/142/EEC and the Annex to Council Directive

82/711/EEC of 18 October 1982 laying down the basic rules necessary for testing migration of the constituents of plastic materials and articles intended to come into contact with foodstuffs<sup>(10)</sup>.

- (42) Substances present in the plastic but not listed in Annex I to this Regulation have not necessarily been risk assessed as they had not been subject to an authorisation procedure. Compliance with Article 3 of Regulation (EC) No 1935/2004 for these substances should be assessed by the relevant business operator in accordance with internationally recognised scientific principles taking into account exposure from food contact materials and other sources.
- (43) Recently additional monomers, other starting substances and additives have received a favourable scientific evaluation by the Authority and should now be added to the Union list.
- (44) As new substances are added to the Union list the Regulation should apply as soon as possible to allow for manufacturers to adapt to technical progress and allow for innovation.
- (45) Certain migration testing rules should be updated in view of new scientific knowledge. Enforcement authorities and industry need to adapt their current testing regime to these updated rules. To allow for this adaptation it seems appropriate that the updated rules only apply 2 years after the adoption of the Regulation.
- (46) Business operators are currently basing their declaration of compliance on supporting documentation following the requirements set out in Directive 2002/72/EC. Declaration of compliance need, in principle, only to be updated when substantial changes in the production bring about changes in the migration or when new scientific data are available. In order to limit the burden to business operators, materials which have been lawfully placed on the market based on the requirements set out in Directive 2002/72/EC should be able to be placed on the market with a declaration of compliance based on supporting documentation in accordance with Directive 2002/72/EC until 5 years after the adoption of the Regulation.
- (47) Analytical methods for testing migration and residual content of vinyl chloride monomer as described in Commission Directives 80/766/EEC of 8 July 1980 laying down the Community method of analysis for the official control of the vinyl chloride monomer level in materials and articles which are intended to come into contact with foodstuffs<sup>(11)</sup> and 81/432/EEC of 29 April 1981 laying down the Community method of analysis for the official control of vinyl chloride released by materials and articles into foodstuffs<sup>(12)</sup> are outdated. Analytical methods should comply with the criteria set out in Article 11 of Regulation (EC) No 882/2004<sup>(13)</sup> of the European Parliament and of the Council on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules. Therefore Directives 80/766/EEC and 81/432/EEC should be repealed.
- (48) The measures provided for in this Regulation are in accordance with the opinion of the Standing Committee on the Food Chain and Animal Health,

HAS ADOPTED THIS REGULATION:

# CHAPTER I

# **GENERAL PROVISIONS**

# Article 1

### Subject matter

1 This Regulation is a specific measure within the meaning of Article 5 of Regulation (EC) No 1935/2004.

2 This Regulation establishes specific requirements for the manufacture and marketing of plastic materials and articles:

- a intended to come into contact with food; or
- b already in contact with food; or
- c which can reasonably be expected to come into contact with food.

### Article 2

### Scope

1 This Regulation shall apply to materials and articles which are placed on the <sup>F1</sup>... market and fall under the following categories:

- a materials and articles and parts thereof consisting exclusively of plastics;
- b plastic multi-layer materials and articles held together by adhesives or by other means;
- c materials and articles referred to in points a) or b) that are printed and/or covered by a coating;
- d plastic layers or plastic coatings, forming gaskets in caps and closures, that together with those caps and closures compose a set of two or more layers of different types of materials;
- e plastic layers in multi-material multi-layer materials and articles.

2 This Regulation shall not apply to the following materials and articles which are placed on the <sup>F1</sup>... market and are intended to be covered by other specific measures:

- a ion exchange resins;
- b rubber;
- c silicones.

3 This Regulation shall be without prejudice to the <sup>F2</sup>... provisions applicable to printing inks, adhesives or coatings.

#### **Textual Amendments**

- F1 Word in Art. 2 omitted (31.12.2020) by virtue of The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, 66(b); 2020 c. 1, Sch. 5 para. 1(1)
- F2 Words in Art. 2(3) omitted (31.12.2020) by virtue of The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, 66(a); 2020 c. 1, Sch. 5 para. 1(1)

#### Article 3

#### Definitions

For the purpose of this Regulation, the following definitions shall apply:

- (1) 'plastic materials and articles' means:
  - (a) materials and articles referred to in points (a), (b) and (c) of Article 2(1); and
  - (b) plastic layers referred to in Article 2(1)(d) and (e);
- (2) 'plastic' means polymer to which additives or other substances may have been added, which is capable of functioning as a main structural component of final materials and articles;
- (3) 'polymer' means any macromolecular substance obtained by:
  - (a) a polymerisation process such as polyaddition or polycondensation, or by any other similar process of monomers and other starting substances; or
  - (b) chemical modification of natural or synthetic macromolecules; or
  - (c) microbial fermentation;
- (4) 'plastic multi-layer' means a material or article composed of two or more layers of plastic;
- (5) 'multi-material multi-layer' means a material or article composed of two or more layers of different types of materials, at least one of them a plastic layer;
- (6) 'monomer or other starting substance' means:
  - (a) a substance undergoing any type of polymerisation process to manufacture polymers; or
  - (b) a natural or synthetic macromolecular substance used in the manufacture of modified macromolecules; or
  - (c) a substance used to modify existing natural or synthetic macromolecules;
- (7) 'additive' means a substance which is intentionally added to plastics to achieve a physical or chemical effect during processing of the plastic or in the final material or article; it is intended to be present in the final material or article;
- (8) 'polymer production aid' means any substance used to provide a suitable medium for polymer or plastic manufacturing; it may be present but is neither intended to be present in the final materials or articles nor has a physical or chemical effect in the final material or article;
- (9) 'non-intentionally added substance' means an impurity in the substances used or a reaction intermediate formed during the production process or a decomposition or reaction product;
- (10) 'aid to polymerisation' means a substance which initiates polymerisation and/or controls the formation of the macromolecular structure;

- (11) 'overall migration limit' (OML) means the maximum permitted amount of non-volatile substances released from a material or article into food simulants;
- (12) 'food simulant' means a test medium imitating food; in its behaviour the food simulant mimics migration from food contact materials;
- (13) 'specific migration limit' (SML) means the maximum permitted amount of a given substance released from a material or article into food or food simulants;
- (14) 'total specific migration limit' (SML(T)) means the maximum permitted sum of particular substances released in food or food simulants expressed as total of moiety of the substances indicated;
- (15) 'functional barrier' means a barrier consisting of one or more layers of any type of material which ensures that the final material or article complies with Article 3 of Regulation (EC) No 1935/2004 and with the provisions of this Regulation;
- (16) [<sup>F3</sup> non-fatty food' means a food for which in migration testing only food simulants other than food simulants D1 or D2 are laid down in Table 2 of Annex III to this Regulation;]
- (17) 'restriction' means limitation of use of a substance or migration limit or limit of content of the substance in the material or article;
- (18) [<sup>F3</sup> specification' means composition of a substance, purity criteria for a substance, physico-chemical characteristics of a substance, details concerning the manufacturing process of a substance or further information concerning the expression of migration limits;]
- (19) [<sup>F4</sup> hot-fill' means the filling of any article with a food with a temperature not exceeding 100 °C at the moment of filling, after which the food cools down to 50 °C or below within 60 minutes, or to 30 °C or below within 150 minutes.]

# **Textual Amendments**

- **F3** Substituted by Commission Regulation (EU) 2016/1416 of 24 August 2016 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F4** Inserted by Commission Regulation (EU) 2016/1416 of 24 August 2016 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).

# Article 4

# Placing on the market of plastic materials and articles

Plastic materials and articles may only be placed on the market if they:

- (a) comply with the relevant requirements set out in Article 3 of Regulation (EC) No 1935/2004 under intended and foreseeable use; and
- (b) comply with the labelling requirements set out in Article 15 of Regulation (EC) No 1935/2004; and

- (c) comply with the traceability requirements set out in Article 17 of Regulation (EC) No 1935/2004; and
- (d) are manufactured according to good manufacturing practice as set out in Commission Regulation (EC) No 2023/2006<sup>(14)</sup>; and
- (e) comply with the compositional and declaration requirements set out in Chapters II, III and IV of this Regulation.

# CHAPTER II

# **COMPOSITIONAL REQUIREMENTS**

# **SECTION 1**

### Authorised substances

# Article 5

# <sup>F5</sup>... List of authorised substances

1 Only the substances included in the  ${}^{F6}$ ... list of authorised substances (hereinafter referred to as the  ${}^{F6}$ ... list) set out in Annex I may be intentionally used in the manufacture of plastic layers in plastic materials and articles.

- 2 The <sup>F6</sup>... list shall contain:
  - a monomers or other starting substances;
  - b additives excluding colorants;
  - c polymer production aids excluding solvents;
  - d macromolecules obtained from microbial fermentation.
- [<sup>F7</sup>3 The appropriate authority may prescribe amendments to the list.]

# **Textual Amendments**

- F5 Word in Art. 5 heading omitted (31.12.2020) by virtue of The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, 67(a); 2020 c. 1, Sch. 5 para. 1(1)
- **F6** Word in Art. 5 omitted (31.12.2020) by virtue of The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, **67(a)**; 2020 c. 1, Sch. 5 para. 1(1)
- F7 Art. 5(3) substituted (31.12.2020) by The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, 67(b); 2020 c. 1, Sch. 5 para. 1(1)

# [<sup>F8</sup>Article 5A

# **Regulations and devolved powers**

- 1. Any power to make regulations under this Regulation
  - a so far as exercisable by a Minister of the Crown, is exercisable by statutory instrument;

b so far as exercisable by the Welsh Ministers, is exercisable by statutory instrument.

2. For regulations made under this Regulation by the Scottish Ministers, see also section 27 of the Interpretation and Legislative Reform (Scotland) Act 2010 (Scottish statutory instruments).

- 3. Any power to make regulations under this Regulation includes power
  - a to make different provision in relation to different cases or classes of case (including different provision for different areas or different classes of business); and
  - b to provide for such exceptions, limitations and conditions, and to make such supplementary, incidental, consequential or transitional provisions, as the appropriate authority considers necessary or expedient.

4. Any statutory instrument or Scottish statutory instrument containing regulations made under this Regulation is subject to annulment in pursuance of a resolution—

- a in the case of England, of either House of Parliament;
- b in the case of Wales, of Senedd Cymru;
- c in the case of Scotland, of the Scottish Parliament.
- 5. In this Regulation, any power
  - a of the Secretary of State to make regulations is limited to regulations which apply in relation to England only;
  - b of the Welsh Ministers to make regulations is limited to regulations which apply in relation to Wales only;
  - c of the Scottish Ministers to make regulations is limited to regulations which apply in relation to Scotland only.]

#### **Textual Amendments**

F8 Art. 5A inserted (31.12.2020) by The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, 68; 2020 c. 1, Sch. 5 para. 1(1) (as amended by S.I. 2020/1504, regs. 1(2), 16(7))

# Article 6

# Derogations for substances not included in the <sup>F9</sup>... list

1 By way of derogation from Article 5, substances other than those included in the  $^{F10}$ ... list may be used as polymer production aids in the manufacture of plastic layers in plastic materials and articles subject to [ $^{F11}$ any relevant enactment].

 $[^{F12}2$  By way of derogation from Article 5, colorants and solvents which were capable of lawful use in the manufacture of plastic layers in plastic materials and articles prior to adoption of the list may continue to be so used subject to any relevant enactment.]

3 The following substances not included in the  $^{F10}$ ... list are authorised subject to the rules set out in Articles 8, 9, 10, 11 and 12:

- [<sup>F13</sup>a all salts of substances for which ' yes ' is indicated in column 2 in Table 1 of Annex II of authorised acids, phenols or alcohols, and subject to the restrictions set out in column 3 and 4 of that table;]
  - b mixtures obtained by mixing authorised substances without a chemical reaction of the components;

- c when used as additives, natural or synthetic polymeric substances of a molecular weight of at least 1 000 Da, except macromolecules obtained from microbial fermentation, complying with the requirements of this Regulation, if they are capable of functioning as the main structural component of final materials or articles;
- d when used as monomer or other starting substance, pre-polymers and natural or synthetic macromolecular substances, as well as their mixtures, except macromolecules obtained from microbial fermentation, if the monomers or starting substances required to synthesise them are included in the <sup>F10</sup>... list.

4 The following substances not included in the <sup>F10</sup>... list may be present in the plastic layers of plastic materials or articles:

- a non-intentionally added substances;
- b aids to polymerisation.

5 By derogation from Article 5, additives not included in the  $^{F10}$ ... list may continue to be used subject to national law after 1 January 2010 until a decision is taken to include or not to include them in the  $^{F10}$ ... list provided they are included in the provisional list referred to in Article 7.

#### **Textual Amendments**

- **F9** Word in Art. 6 heading omitted (31.12.2020) by virtue of The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, **69(a)**; 2020 c. 1, Sch. 5 para. 1(1)
- F10 Word in Art. 6 omitted (31.12.2020) by virtue of The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, 69(a); 2020 c. 1, Sch. 5 para. 1(1)
- F11 Words in Art. 6(1) substituted (31.12.2020) by The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, 69(b); 2020 c. 1, Sch. 5 para. 1(1)
- **F12** Art. 6(2) substituted (31.12.2020) by The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, **69(c)**; 2020 c. 1, Sch. 5 para. 1(1)
- **F13** Substituted by Commission Regulation (EU) 2020/1245 of 2 September 2020 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).

# [<sup>F14</sup>Article 7

# Establishment and management of the provisional list

1. The appropriate authority must regularly prescribe updates to the provisional list of additives that that was published by the European Commission in 2008.

- 2. An additive must be removed from the provisional list
  - a when it is included in the list set out in Annex 1;
  - b when a decision is taken by the appropriate authority not to include it in the list; or
  - c if during the examination of the data, the appropriate authority calls for supplementary information and that information is not submitted within the time limits specified by the appropriate authority.]

#### **Textual Amendments**

F14 Art. 7 substituted (31.12.2020) by The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, **70**; 2020 c. 1, Sch. 5 para. 1(1)

#### SECTION 2

### General requirements, restrictions and specifications

Article 8

### General requirement on substances

Substances used in the manufacture of plastic layers in plastic materials and articles shall be of a technical quality and a purity suitable for the intended and foreseeable use of the materials or articles. The composition shall be known to the manufacturer of the substance and made available to the competent authorities on request.

### Article 9

### **Specific requirements on substances**

1 Substances used in the manufacture of plastic layers in plastic materials and articles shall be subject to the following restrictions and specifications:

- a the specific migration limit set out in Article 11;
- b the overall migration limit set out in Article 12;
- c the restrictions and specifications set out in column 10 of Table 1 of point 1 of Annex I;
- d the detailed specifications set out in point 4 of Annex I.

2 Substances in nanoform shall only be used if explicitly authorised and mentioned in the specifications in Annex I.

# Article 10

### General restrictions on plastic materials and articles

General restrictions related to plastic materials and articles are laid down in Annex II.

#### Article 11

#### **Specific migration limits**

1 Plastic materials and articles shall not transfer their constituents to foods in quantities exceeding the specific migration limits (SML) set out in Annex I. Those specific migration limits (SML) are expressed in mg of substance per kg of food (mg/kg).

<sup>F15</sup>2 .....

[<sup>F3</sup>3 By derogation from paragraph 1, additives which are also authorised as food additives by Regulation (EC) No 1333/2008 or as flavourings by Regulation (EC) No 1334/2008 shall not migrate into foods in quantities having a technical effect in the final foods and shall not:

- a exceed the restrictions provided for in Regulation (EC) No 1333/2008 or in Regulation (EC) No 1334/2008 or in Annex I to this Regulation for foods for which their use is authorised as food additive or flavouring substances; or
- b exceed the restrictions set out in Annex I to this Regulation in foods for which their use is not authorised as food additive or flavouring substances.]

 $[^{F4}4]$  Where it is specified that no migration of a particular substance is permitted, compliance shall be established using appropriate migration test methods selected in accordance with Article 11 of Regulation (EC) No 882/2004 that can confirm the absence of migration above a specified limit of detection.

For the purposes of the first subparagraph, unless specific detection limits have been set for particular substances or groups of substances, a detection limit of 0,01 mg/kg shall apply.]

#### **Textual Amendments**

- **F3** Substituted by Commission Regulation (EU) 2016/1416 of 24 August 2016 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- F4 Inserted by Commission Regulation (EU) 2016/1416 of 24 August 2016 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F15** Deleted by Commission Regulation (EU) 2016/1416 of 24 August 2016 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).

# Article 12

# **Overall migration limit**

1 Plastic materials and articles shall not transfer their constituents to food simulants in quantities exceeding 10 milligrams of total constituents released per  $dm^2$  of food contact surface (mg/dm<sup>2</sup>).

By derogation from paragraph 1, plastic materials and articles intended to be brought into contact with food intended for infants and young children, as defined by Commission Directives  $2006/141/EC^{(15)}$  and  $2006/125/EC^{(16)}$ , shall not transfer their constituents to food simulants in quantities exceeding 60 milligrams of total of constituents released per kg of food simulant.

# CHAPTER III

# SPECIFIC PROVISIONS FOR CERTAIN MATERIALS AND ARTICLES

# Article 13

### Plastic multi-layer materials and articles

1 In a plastic multi-layer material or article, the composition of each plastic layer shall comply with this Regulation.

2 By derogation from paragraph 1, a plastic layer which is not in direct contact with food and is separated from the food by a functional barrier, may:

- a not comply with the restrictions and specifications set out in this Regulation except for vinyl chloride monomer as provided in Annex I; and/or
- b be manufactured with substances not listed in the  $^{F16}$ ... list or in the provisional list.

 $[^{F3}3$  Substances under paragraph 2(b) shall not migrate into food or food simulant, in accordance with Article 11(4). The detection limit set out in the second subparagraph of Article 11(4) shall apply to groups of substances if they are structurally and toxicologically related, including isomers or substances with the same relevant functional group, or to individual substances that are not related, and shall include possible set-off transfer.]

4 The substances not listed in the <sup>F16</sup>... list or provisional list referred to in paragraph 2(b) shall not belong to either of the following categories:

- a substances classified as 'mutagenic', 'carcinogenic' or 'toxic to reproduction' in accordance with the criteria set out in sections 3.5, 3.6. and 3.7 of Annex I to Regulation (EC) No 1272/2008 of the European Parliament and the Council<sup>(17)</sup>;
- b substances in nanoform.

5 The final plastic multi-layer material or article shall comply with the specific migration limits set out in Article 11 and the overall migration limit set out in Article 12 of this Regulation.

#### Textual Amendments

- **F3** Substituted by Commission Regulation (EU) 2016/1416 of 24 August 2016 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- F16 Word in Art. 13 omitted (31.12.2020) by virtue of The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, 71; 2020 c. 1, Sch. 5 para. 1(1)

# Article 14

#### Multi-material multi-layer materials and articles

1 In a multi-material multi-layer material or article, the composition of each plastic layer shall comply with this Regulation.

2 By derogation from paragraph 1, in a multi-material multi-layer material or article a plastic layer which is not in direct contact with food and is separated from the food by a functional barrier, may be manufactured with substances not listed in the <sup>F17</sup>... list or the provisional list.

3 The substances not listed in the <sup>F17</sup>... list or provisional list referred to in paragraph 2 shall not belong to either of the following categories:

- a substances classified as 'mutagenic', 'carcinogenic' or 'toxic to reproduction' in accordance with the criteria set out in sections 3.5, 3.6. and 3.7 of Annex I to Regulation (EC) No 1272/2008;
- b substances in nanoform.

4 By derogation from paragraph 1, Articles 11 and 12 of this Regulation do not apply to plastic layers in multi-material multi-layer materials and articles.

5 The plastic layers in a multi-material multi-layer material or article shall always comply with the restrictions for vinyl chloride monomer laid down in Annex I to this Regulation.

<sup>F18</sup>6 .....

#### **Textual Amendments**

F17 Word in Art. 14 omitted (31.12.2020) by virtue of The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, 72(a); 2020 c. 1, Sch. 5 para. 1(1)

F18 Art. 14(6) omitted (31.12.2020) by virtue of The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, 72(b); 2020 c. 1, Sch. 5 para. 1(1)

# CHAPTER IV

# DECLARATION OF COMPLIANCE AND DOCUMENTATION

### Article 15

### **Declaration of compliance**

1 At the marketing stages other than at the retail stage, a written declaration in accordance with Article 16 of Regulation (EC) No 1935/2004 shall be available for plastic materials and articles, products from intermediate stages of their manufacturing as well as for the substances intended for the manufacturing of those materials and articles.

2 The written declaration referred to in paragraph 1 shall be issued by the business operator and shall contain the information laid down in Annex IV.

3 The written declaration shall permit an easy identification of the materials, articles or products from intermediate stages of manufacture or substances for which it is issued. It shall be renewed when substantial changes in the composition or production occur that bring about changes in the migration from the materials or articles or when new scientific data becomes available.

#### Article 16

#### **Supporting documents**

1 Appropriate documentation to demonstrate that the materials and articles, products from intermediate stages of their manufacturing as well as the substances intended for the

manufacturing of those materials and articles comply with the requirements of this Regulation shall be made available by the business operator to the <sup>F19</sup>... competent authorities on request.

2 That documentation shall contain the conditions and results of testing, calculations, including modelling, other analysis, and evidence on the safety or reasoning demonstrating compliance. Rules for experimental demonstration of compliance are set out in Chapter V.

#### **Textual Amendments**

**F19** Word in Art. 16 omitted (31.12.2020) by virtue of The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, **73**; 2020 c. 1, Sch. 5 para. 1(1)

# CHAPTER V

# COMPLIANCE

# Article 17

# **Expression of migration test results**

1 To check the compliance, the specific migration values shall be expressed in mg/kg applying the real surface to volume ratio in actual or foreseen use.

- 2 By derogation from paragraph 1 for:
  - a containers and other articles, containing or intended to contain, less than 500 millilitres or grams or more than 10 litres,
  - b materials and articles for which, due to their form it is impracticable to estimate the relationship between the surface area of such materials or articles and the quantity of food in contact therewith,
  - c sheets and films that are not yet in contact with food,
  - d sheets and films containing less than 500 millilitres or grams or more than 10 litres,

the value of migration shall be expressed in mg/kg applying a surface to volume ratio of 6  $dm^2$  per kg of food.

This paragraph does not apply to plastic materials and articles intended to be brought into contact with or already in contact with food for infants and young children, as defined by Directives 2006/141/EC and 2006/125/EC.

3 By derogation from paragraph 1, for caps, gaskets, stoppers and similar sealing articles the specific migration value shall be expressed in:

- [<sup>F3</sup>a mg/kg using the actual content of the container for which the closure is intended applying the total contact surface of sealing article and sealed container if the intended use of the article is known, while taking into account the provisions of paragraph 2;]
  - b mg/article if the intended use of the article is unknown.

4 For caps, gaskets, stoppers and similar sealing articles the overall migration value shall be expressed in:

- a mg/dm<sup>2</sup> applying the total contact surface of sealing article and sealed container if the intended use of the article is known;
- b mg/article if the intended use of the article is unknown.

#### **Textual Amendments**

**F3** Substituted by Commission Regulation (EU) 2016/1416 of 24 August 2016 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).

# Article 18

### **Rules for assessing compliance with migration limits**

1 For materials and articles already in contact with food verification of compliance with specific migration limits shall be carried out in accordance with the rules set out in Chapter 1 of Annex V.

2 For materials and articles not yet in contact with food verification of compliance with specific migration limits shall be carried out in food or in food simulants set out in Annex III in accordance with the rules set out in Chapter 2, Section 2.1 of Annex V.

3 For materials and articles not yet in contact with food screening of compliance with the specific migration limit can be performed applying screening approaches in accordance with the rules set out in Chapter 2, Section 2.2 of Annex V. If a material or article fails to comply with the migration limits in the screening approach a conclusion of non-compliance has to be confirmed by verification of compliance in accordance with paragraph 2.

 $[^{F3}4$  For materials and articles not yet in contact with food verification of compliance with the overall migration limit shall be carried out in food simulants as set out in Annex III in accordance with the rules set out in Chapter 3 of Annex V.]

5 For materials and articles not yet in contact with food screening of compliance with the overall migration limit can be performed applying screening approaches in accordance with the rules set out in Chapter 3, Section 3.4 of Annex V. If a material or article fails to comply with the migration limit in the screening approach a conclusion of non-compliance has to be confirmed by verification of compliance in accordance with paragraph 4.

6 The results of specific migration testing obtained in food shall prevail over the results obtained in food simulant. The results of specific migration testing obtained in food simulant shall prevail over the results obtained by screening approaches.

[<sup>F37</sup> Before comparing specific and overall migration test results with the migration limits the correction factors set out in point 3 of Annex III and Chapter 4 of Annex V shall be applied in accordance with the rules set out therein.]

#### **Textual Amendments**

**F3** Substituted by Commission Regulation (EU) 2016/1416 of 24 August 2016 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).

### Article 19

# Assessment of substances not included in the <sup>F20</sup>... list

Compliance with Article 3 of Regulation (EC) No 1935/2004 of substances referred to in Articles 6(1), 6(2), 6(4), 6(5) and 14(2) of this Regulation which are not covered by an inclusion in Annex I to this Regulation shall be assessed in accordance with internationally recognised scientific principles on risk assessment.

Textual Amendments
F20 Word in Art. 19 heading omitted (31.12.2020) by virtue of The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, 74; 2020 c. 1, Sch. 5 para. 1(1)

# CHAPTER VI

# FINAL PROVISIONS

# Article 20

# Amendments of EU acts

The Annex to Council Directive 85/572/EEC<sup>(18)</sup> is replaced by the following:

'The food simulants to be used for testing migration of constituents of plastic materials and articles intended to come into contact with a single food or specific groups of foods are set out in point 3 of Annex III to Commission Regulation (EU) No 10/2011.'

# Article 21

# **Repeal of EU acts**

Directives 80/766/EEC, 81/432/EEC, and 2002/72/EC are hereby repealed with effect from 1 May 2011.

References to the repealed Directives shall be construed as references to this Regulation and shall be read in accordance with the correlation tables in Annex VI.

# Article 22

# **Transitional provisions**

1 Until 31 December 2012 the supporting documents referred to in Article 16 shall be based on the basic rules for overall and specific migration testing set out in the Annex to Directive 82/711/EEC.

2 As from 1 January 2013 the supporting documents referred to in Article 16 for materials, articles and substances placed on the market until 31 December 2015, may be based on:

- a the rules for migration testing set out in Article 18 of this Regulation; or
- b the basic rules for overall and specific migration testing set out in the Annex to Directive 82/711/EEC.

3 As from 1 January 2016, the supporting documents referred to in Article 16 shall be based on the rules for migration testing set out in Article 18, without prejudice to paragraph 2 of this Article.

4 Until 31 December 2015 additives used in glass fibre sizing for glass fibre reinforced plastics which are not listed in Annex I have to comply with the risk assessment provisions set out in Article 19.

5 Materials and articles that have been lawfully placed on the market before 1 May 2011 may be placed on the market until 31 December 2012.

# Article 23

# Entry into force and application

This Regulation shall enter into force on the 20th day following its publication in the *Official Journal of the European Union*.

It shall apply from 1 May 2011.

The provision of Article 5 as regards the use of additives, others than plasticisers, shall apply for plastic layers or plastic coatings in caps and closures referred to in Article 2(1) (d), as from 31 December 2015.

The provision of Article 5 as regards the use of additives used in glass fibre sizing for glass fibre reinforced plastics, shall apply from 31 December 2015.

The provisions of Articles 18(2), 18(4) and 20 shall apply from 31 December 2012.

F21

#### **Textual Amendments**

F21 Words in Signature omitted (31.12.2020) by virtue of The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, 75; 2020 c. 1, Sch. 5 para. 1(1)

Status: Point in time view as at 31/12/2020.

# ANNEX I

# Substances

1. F<sup>22</sup>... List of authorised monomers, other starting substances, macromolecules obtained from microbial fermentation, additives and polymer production aids

Table 1 contains the following information:

Column 1 (FCM substance No): the unique identification number of the substance

Column 2 (Ref. No): the EEC packaging material reference number

Column 3 (CAS No): the Chemical Abstracts Service (CAS) registry number

Column 4 (Substance Name): the chemical name

Column 5 (Use as additive or polymer production aid (PPA) (yes/no)): an indication if the substance is authorised to be used as additive or polymer production aid (yes) or if the substance is not authorised to be used as additive or polymer production aid (no). If the substance is only authorised as PPA it is indicated (yes) and in the specifications the use is restricted to PPA.

Column 6 (Use as monomer or other starting substance or macromolecule obtained from microbial fermentation (yes/no)): an indication if the substance is authorised to be used as monomer or other starting substance or macromolecule obtained from microbial fermentation (yes) or if the substance is not authorised to be used as monomer or other starting substance or macromolecule obtained from microbial fermentation (no). If the substance is authorised as macromolecule obtained from microbial fermentation it is indicated (yes) and in the specifications it is indicated that the substance is a macromolecule obtained from microbial fermentation.

Column 7 (FRF applicable (yes/no)): an indication if for the substance the migration results can be corrected by the Fat Consumption Reduction Factor (FRF) (yes) or if they cannot be corrected by the FRF (no).

[<sup>F3</sup>Column 8 (SML [mg/kg]): the specific migration limit applicable for the substance. It is expressed in mg substance per kg food. It is marked as ND ( ' not-detectable ') if the substance is one in respect of which no migration is permitted, to be determined in accordance with Article 11(4).]

Column 9 (SML(T) [mg/kg] (group restriction No)): contains the identification number of the group of substances for which the group restriction in Column 1 in Table 2 of this Annex applies.

Column 10 (Restrictions and specifications): contains other restrictions than the specific migration limit specifically mentioned and it contains specifications related to the substance. In case detailed specifications are set out a reference to Table 4 is included.

Column 11 (Notes on verification of compliance): contains the Notes number which refers to the detailed rules applicable for verification of compliance for this substance included in Column 1 in Table 3 of this Annex.

If a substance appearing on the list as an individual compound is also covered by a generic term, the restrictions applying to this substance shall be those indicated for the individual compound.

F15

# TABLE 1

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
FCM	Ref.	CAS	Substa	nEese	Use	FRF	SML[1	n§ML(	()Restrie	tiontes
substa No		No	name	as additiv or polymo produo	as or erother ctitartin s/ substa or macro obtain from microt	applica nerro) g nce molecula ed	a <b>Hlg(</b> yes/		and specifi p	on cat <b>ëvifs</b> catio of complianc
1	12310	026630	9a413u7hin	no	yes	no				
2	12340		albumin coagula by formald	ted	yes	no				
3	12375		alcohols aliphatic monohy saturate linear, primary $(C_4-C_{22})$	c, dric,	yes	no				
4	22332		diisocya and (60 % w/w) 2,4,4-	/lhexane inate /lhexane		no		(17)	1 mg/ kg in final product expresse as isocyan moiety.	ed
5	25360	-	trialkyl( C <sub>15</sub> )acet acid, 2,3- epoxypr ester	ic	yes	no	ND		1 mg/ kg in final product expresse as epoxygr	ed

									Molecu weight is 43 Da.	lar
6	25380		trialkyl acetic acid (C <sub>7</sub> - C <sub>17</sub> ), vinyl esters	no	yes	no	0,05			(1)
7	30370		acetylac acid, salts	eștes	no	no				
8	30401		acetylat mono- and diglycen of fatty acids		no	no		(32)		
9	30610		from natural oils and fats, and their mono-, di- and triglyce esters (branch fatty acids at naturall occurin levels are included	rboxylic rol ed y g	no	no				
10	30612	_	acids, C <sub>2</sub> - C <sub>24</sub> ,	yes	no	no				

		aliphatic linear, monoca syntheti and their mono-, di- and triglycer esters	rboxylic c	,				
11	30960	 acids, aliphatic monoca (C <sub>6</sub> - C <sub>22</sub> ), esters with polygly	rboxylic	no	no			
12	31328	 acids, fatty, from animal or vegetabl food fats and oils	yes le	no	no			
13	33120	 alcohols aliphatic monohy saturated linear, primary (C <sub>4</sub> - C <sub>24</sub> )	e, rdric, d,	no	no			
14	33801	 n- alkyl(C <sub>1</sub> C <sub>13</sub> )ben acid	yes 10- zenesulp	no honic	no	30		
15	34130	alkyl, linear with even number of carbon atoms (C <sub>12</sub> -	yes	no	yes	30		

		C <sub>20</sub> ) dimethy	lamines						
16	34230	 alkyl(C C <sub>22</sub> )sulj acids		no	no	6			
17	34281	 alkyl(C C <sub>22</sub> )sulj acids, linear, primary with an even number of carbon atoms	ohuric	no	no				
18	34475	 alumini calcium hydroxi phosphi hydrate	de	no	no				
19	39090	 N,N- bis(2- hydroxy C <sub>18</sub> )ami	yes vethyl)al ne	no kyl(C <sub>8</sub> -	no		(7)		
20	39120	 N,N- bis(2- hydroxy C <sub>18</sub> )am hydroch		no kyl(C <sub>8</sub> -	no		(7)	SML(T) expresso excludin HCl	ed
21	42500	 carboni acid, salts	cyes	no	no				
22	43200	 castor oil, mono- and diglyce	yes	no	no				
23	43515	 chloride of choline esters of coconut oil		no	no	0,9			(1)

		fatty acids						
24	45280	 cotton fibers	yes	no	no			
25	45440	 cresols, butylate styrenat	d,	no	no	12		
26	46700	benzofu one containi a) 5,7- di-tert- butyl-3- (3,4- dimethy benzofu one (80 to 100 % w/w) and b) 5,7-di- tert- butyl-3- (2,3-	(lphenyl) ran-2- ng: (lphenyl) ran-2-	-3H-	no	5		
27	48960	 9,10- dihydro stearic acid and its oligome		no	no	5		
28	50160	di-n- octyltin bis(n- alkyl(C C <sub>16</sub> ) mercapt		no )	no		(10)	

29	50360	_	di-n-	yes	no	no	(10)	
_)	50500		octyltin bis(ethy maleate	1			(10)	
30	50560		di-n- octyltin 1,4- butaned bis(mer	yes iol captoace	no tate)	no	(10)	
31	50800		di-n- octyltin dimalea esterifie	te,	no	no	(10)	
32	50880		di-n- octyltin dimalea polymen (n = 2-4)		no	no	(10)	
33	51120		di-n- octyltin thioben 2- ethylhez mercapt	zoate	no	no	(10)	
34	54270	_	ethylhy	d <b>yex</b> yme	t <b>h</b> ølcellu	lnse		
35	54280		ethylhy	d <b>yex</b> ypro	pnydcellu	lonsce		
36	54450		fats and oils, from animal or vegetab food sources	yes le	no	no		
37	54480		fats and oils, hydroge from animal or vegetab food sources		no	no		

38	55520	 glass fibers	yes	no	no		
39	55600	 glass microba	yes lls	no	no		
40	56360	glycerol esters with acetic acid	"yes	no	no		
41	56486	glycerol esters with acids, aliphatic saturated linear, with an even number of carbon atoms ( $C_{14}$ - $C_{18}$ ) and with acids, aliphatic unsatura linear, with an even number of carbon atoms ( $C_{14}$ - $C_{18}$ ) and with acids, aliphatic unsatura linear, with an even number of carbon atoms ( $C_{14}$ - $C_{18}$ ) and with acids, aliphatic unsatura linear, with an even number of carbon atoms ( $C_{14}$ - $C_{18}$ ) and with acids, aliphatic unsatura linear, with an even number of carbon atoms ( $C_{14}$ - $C_{18}$ )	c, d,	no	no		
42	56487	 glycerol esters with butyric acid	,yes	no	no		
43	56490	 glycerol esters with	"yes	no	no		

		erucic acid					
44	56495	glycerol esters with 12- hydroxy acid		no	no		
45	56500	— glycerol esters with lauric acid	l,yes	no	no		
46	56510	— glycerol esters with linoleic acid	l,yes	no	no		
47	56520	— glycerol esters with myristic acid		no	no		
48	56535	glycerol esters with nonanoi acid		no	no		
49	56540	glycerol esters with oleic acid	l,yes	no	no		
50	56550	glycerol esters with palmitic acid		no	no		
51	56570	glycerol esters with propion acid		no	no		
52	56580	glycerol esters with ricinole acid		no	no		

53	56585	 glycerol,yes esters with stearic acid	no	no		
54	57040	 glycerol yes monooleate, ester with ascorbic acid	no	no		
55	57120	 glycerol yes monooleate, ester with citric acid	no	no		
56	57200	 glycerol yes monopalmitate ester with ascorbic acid	, no	no		
57	57280	 glycerol yes monopalmitate ester with citric acid	, no	no		
58	57600	 glycerol yes monostearate, ester with ascorbic acid	no	no		
59	57680	 glycerol yes monostearate, ester with citric acid	no	no		
60	58300	 glycine, yes salts	no	no		
62	64500	 lysine, yes salts	no	no		
63	65440	 manganesses pyrophosphite	no	no		

64	66695	—	methylh	<b>ydds</b> oxyn	n <b>et</b> hylce	ll <b>u</b> tose				
65	67155		(5- methyl- benzoxa 4,4'- bis(2- benzoxa stilbene and 4,4'- bis(5- methyl-	nzolyl)-4 2- nzolyl)sti nzolyl)	lbene,	no			Not more than 0,05 % (w/w) (quantit of substand used/ quantity of the formula Mixture obtained from the manufac process in the typical ratio of (58-62 9 (13-17 9	ce tion). d cturing %): %):
66	67600		mono- n- octyltin tris(alky C <sub>16</sub> ) mercapt		no )	no		(11)		
67	67840		montani acids and/or their esters with ethylene and/or with 1,3- butaned and/or with glycerol	eglycol	no	no				
68	73160		phospho acid, mono- and di-	) <b>yie</b> s	no	yes	0,05			

69	74400 —	n-alkyl (C <sub>16</sub> and C <sub>18</sub> ) esters phospho <b>yæs</b> s n acid, tris(nonyl- and/or dinonylphenyl) ester	10 yes	30	
70	76463 —	polyacrylics n acid, salts	no no	(2	22)
71	76730 —	polydim <b>s/tes</b> ylsilom γ- hydroxypropylated		6	
72	76815 —	of adipic acid with glycerol or pentaerythritol, esters with even numbered, unbranched $C_{12}$ - $C_{22}$ fatty acids	no no		32) The fraction with molecular weight below 1 000 Da [ <sup>F3</sup> shall] not exceed 5 % (w/w)
73	76866 —	polyesterses n of 1,2- propanediol and/ or 1,3- and/ or 1,4- butanediol and/or polypropyleneglyowith adipic acid, which may be	no yes		31) 32)

		end- capped with acetic acid or fatty acids $C_{12}$ - $C_{18}$ or n- octanol and/ or n- decanol		
74	77440 —	polyethykesseglycnb diricinoleate	yes 42	
75	77702 —	polyethylæseglycnb esters of aliph. monocarb. acids (C <sub>6</sub> - C <sub>22</sub> ) and their ammonium and sodium sulphates	no	
76	77732 —	polyethylæse no glycol (EO = 1-30, typically 5) ether of butyl 2- cyano 3-(4- hydroxy-3- methoxyphenyl) acrylate	no 0,05	Only for use in PET
77	77733 —	polyethylæseglycnb (EO = 1-30, typically 5)	no 0,05	Only for use in PET

78	77897	acrylate	- /phenyl)	anh		5		
/8	//89/	(EO = 1-50)		00	no	5		
79	80640	 polyoxy (C <sub>2</sub> - C <sub>4</sub> ) dimethy	a <b>jles</b> yl Ipolysile	no oxane	no			
80	81760	powder flakes and fibres of brass, bronze, copper, stainles steel, tin, iron and alloys of copper, tin and iron		no	no			
81	83320	 propylh	ydersoxyet	hydcellu	lonsce			
82	83325	 	<b>yyders</b> oxym	-				
83	83330	 propylh	yydensoxyp	r <b>ap</b> ylcell	ulose			
84	85601	silicates natural (with the exception		no	no			

		of asbestos)					
85	85610 —	silicates,yes natural, silanated (with the exception of asbestos)	no	no			
86	86000 —	silicic yes acid, silylated	no	no			
[ <sup>F3</sup> 87	86285	Silicon yes dioxide, silanated	no	no			For synthetic amorphous silicon dioxide, silanated: primary particles of 1– 100 nm which are aggregated to a size of 0,1- 1 µm and may form agglomerates within the size distribution of $0,3$ µm to the mm size. ]
88	86880 —	sodium yes monoalkyl dialkylphenox	no ybenzene	no disulphon	9 ate		
89	89440 —	stearic yes acid, esters	no	no		(2)	

		with ethylen	eglycol				
90	92195	 taurine, salts	yes	no	no		
91	92320	 tetradec polyeth = 3-8) ether of glycolic acid	ylenegly	no col(EO	yes	15	
92	93970	 tricyclo bis(hex	d <b>eea</b> ned ahydropl	imothanc nthalate)	lno	0,05	
93	95858	waxes, paraffin refined, derived from petroleu based or syntheti hydroca feedstoo low viscosit	ic, im ic urbon cks,	no	no	0,05	Not to be used for articles in contact with fatty foods for which $[^{F3}simulant$ D1 and/ or D2] is laid down. Average molecular weight not less than 350 Da. Viscosity at 100 °C not less than 2,5 cSt $(2,5 \times 10^{-6}$ $m^2/s).$

						Content of hydroca with Carbon number less than 25, not more than 40 % (w/w).	
94	95859	waxes, refined, derived from petroleu based or syntheti hydroca feedstoo high viscosit	ım c rbon ks,	no	no	Average molecul weight not less than 500 Da. Viscosit at 100 °C not less than 11 cSt ( $11 \times 10^{-6}$ m <sup>2</sup> /s). Content of mineral hydroca with Carbon number less than 25, not more than 5 % (w/w).	ar y
95	95883	 white mineral oils, paraffin derived from	ic,	no	no	Average molecul weight not less than	ar

06	95920		petroleu based hydroca feedstoo	rbon ks	20	10	480 Da. Viscosit at 100 °C not less than 8,5 cSt $(8,5 \times 10^{-6}$ m <sup>2</sup> /s). Content of mineral hydroca with Carbon number less than 25, not more than 5% (w/w).	-	
96	95920	_	wood flour and fibers, untreate	yes d	no	no			
97	72081/3	lθ—	petroleu hydroca resins (hydrog	rbon	no	no	of dienes and olefins of the aliphatic alicyclic and/or	rbon mated d c polymerisation c,	

from distil of crack petro	
stock with boilin range	a ng
not great than 220 °	er
as we as the pure	ell e
found in these	
stream	equently
by distil	lation, ogenation
addit proce	essing. erties:
	Viscosity at 120 °C: > 3 Pa.s, Softening point:
	> 95 °C as determined by ASTM Method
_	E 28-67, Bromine number: < 40

									(ASTM D1159), The colour of a 50% solution in toluene < 11 on the Gardner scale, Residual aromatic monomer $\leq$ 50 ppm,
98	17260	000005	0f <b>0fi</b> fald	eyheysde	yes	no		(15)	 
	54880								
99	19460	000005		yes	yes	no			
	62960		acid						
100	24490	000005	0sðfb <b>it</b> ol	yes	yes	no			
	88320								
101	36000	000005	0a8do7bic acid	e yes	no	no			
102	17530	000005	0 <b>g10</b> eðse	no	yes	no			
103	18100	000005	6g8yle6ro	lyes	yes	no			
	55920								
104	58960	000005	7h@9a@lec bromide	ylesimetl	nyydammo	<b>niq</b> ım	6		
105	22780	000005	7p <b>aO</b> n?itic	yes	yes	no			
	70400		acid						
106	24550	000005		yes	yes	no			
	89040		acid						
107	25960	000005	7ut8a6	no	yes	no			
108	24880	000005	7stiOrdse	no	yes	no			
109	23740	000005		yes	yes	no			
	81840		propane	d101					

110	93520	0000059 001019		yes rol	no	no				
111	53600	0000060	D <b>ettoy</b> tene acid	eolizamine	et <b>etr</b> aace	ti <b>o</b> o				
112	64015	0000060	)lindleic acid	yes	no	no				
113	16780	0000064	leth7afool	yes	yes	no				
	52800									
114	55040	0000064	fd876c acid	yes	no	no				
115	10090	0000064		yes	yes	no				
	30000		acid							
116	13090	0000065		yes	yes	no				
	37600		acid							
117	21550	000006	7 <b>n5eth</b> land	oho	yes	no				
118	23830	0000067		yes	yes	no				
	81882		propanc	l						
119	30295	0000067	7a <b>64</b> tdne	yes	no	no				
120	49540	0000067	7 <b>d‰‰et</b> hy sulphox		no	no				
121	24270	0000069		eyes	yes	no				
	84640		acid							
122	23800	000007	1423-8 propanc	no l	yes	no				
123	13840	000007	1436-3 butanol	no	yes	no				
124	22870	000007	141-0 pentano	no l	yes	no				
125	16950	0000074	le85yllen	eno	yes	no				
126	10210	0000074	4a86tyler	eno (	yes	no				
127	26050	0000075	5v01y4 chloride	no	yes	no	ND		1 mg/ kg in final product	
128	10060	0000075	5a0 <b>∂ta</b> lde	hnyode	yes	no		(1)		
129	17020	0000075	5e2Hy≠ oxide	eno	yes	no	ND		1 mg/ kg in final product	(10)

130	26110	000007	5v3f5y4ide chloride		yes	no	ND			(1)
131	48460	000007	51317–6 difluorc	yes ethane	no	no				
132	26140	000007	5 <b>v318</b> y7/de fluoride	ennæ	yes	no	5			
133	14380	000007	5e <b>4f</b> b6ny		yes	no	ND		1 mg/	(10)
	23155		chloride	3					kg in final product	
134	43680	000007	5e∰£96od	រំ <b>វៀងឆ</b> rom	etthoane	no	6		Content of chlorofl less than 1 mg/ kg of the substan	uorometha
135	24010	000007	5p <b>56p9</b> le oxide	nieo	yes	no	ND		1 mg/ kg in final product	
136	41680	000007	6e2i2np2ho	ryes	no	no				(3)
137	66580	000007	methyle methyl- (1-	yes nebis(4- 6- yclohex		yes		(5)		
138	93760	000007	7t90n7 butyl acetyl citrate	yes	no	no		(32)		
139	14680	000007		yes	yes	no				
	44160		acid							
140	44640	000007	7e9BiO acid, triethyl ester	yes	no	no		(32)		
141	13380	000007		yes	yes	no	6			
	25600		trimeth	vlolpropa	ane					
	94960									
142	26305	000007	8 <b>v0/8y0t</b> ri	ethoxysi	laynæs	no	0,05		Only to be	[ <sup>F28</sup> (1)]

									used as a surface treatmen agent	nt
143	62450	000007	8is <b>70pe</b> nta	nyes	no	no				
144	19243 21640	000007	8279-5 methyl- butadier		yes	no	ND		1 mg/ kg in final product	
145	10630	000007	9a06yllam	ide	yes	no	ND			
146	23890 82000	000007	9 <b>p00p4</b> on acid	iges	yes	no				
147	10690	000007	9a¢0yӢc acid	no	yes	no		(22)		
148	14650	000007	9 <b>eB&amp;</b> 9fotr	i <b>flo</b> toroet	hydesne	no	ND			(1)
149	19990	000007	9 <b>HBOt</b> Hacı	y <b>ıla</b> mide	yes	no	ND			
150	20020	000007	9m4dth4acı acid	yrlic	yes	no		(23)		
[ <sup>F25</sup> 151	13480 13607]	000008	bis(4-	no /phenyl)j	yes	no	0,05		Not to be used for the manufac of polycarl feeding bottles ". Not to be used for the manufac of polycarl drinking cups or bottles which, due to their spill proof characte	cture conate

									are intended for infants <sup>i</sup> and young children <sup>j</sup> .		
152	15610	000008		no odipheny e	yes l	no	0,05				
153	15267	000008	040 <b>8′-</b> 0 diamino sulphon	no dipheny e	yes l	no	5				
154	13617	000008		no	yes	no	0,05				
	16090		sulphon	xydipher e	iyl						
155	23470	000008	0 <del>0</del> 56-8 pinene	no	yes	no					
156	21130	000008	0n62thacr acid, methyl ester	yılicc	yes	no		(23)			
157	74880	000008-	<sup>1</sup> <b>pT4h</b> 2lic acid, dibutyl ester	yes	no	no	0,3	(32)	Only to be used as: (a) (b)	(7) plastici in repeate use materia and articles contact non- fatty foods; technic suppor agent in polyole in concen up to 0,05 % in	ed als ing eal t effins trations

										the final product.
158	23380	000008	5p <b>#4</b> h&lic	yes	yes	no				
	76320		anhydri	de						
159	74560	000008	5p68hālic acid, benzyl butyl ester	yes	no	no	30	(32)	Only to be used as: (a) (b)	(7) plasticiser in repeated use materials and articles; plasticiser in single- use materials and articles contacting non- fatty foods except for infant formulae and follow- on formulae as defined by Directive 2006/141/ EC or processed cereal- based foods and baby foods for infants

									(c)	and young children as defined by Directiv 2006/12 EC; technica support agent in concentrup to 0,1 % in the final product.	re 5/ Il rations
160	84800	000008	7saBe3ylic acid, 4-tert- butylph ester		no	yes	12				
[ <sup>F29</sup> 161	92160	000087-	<b>-69(4)-</b> tartaric acid	yes	no	no ]					
162	65520	000008	7 <b>m7æn£i</b> to	lyes	no	no					
163	66400	000008	82224'-4 methyle bis(4- ethyl-6- tert- butylph		no	yes		(13)			
164	34895	000008	8268-6 aminob	yes enzamide	no e	no	0,05		Only for use in PET for water and beverag	es	
165	23200	000008		yes	yes	no					
	74480		phthalic acid								
166	24057	000008	9p <b>3y2</b> 07ne anhydri	l <b>hti</b> c de	yes	no	0,05				

167	25240	000009	1208–7 toluene diisocya	no mate	yes	no		(17)	1 mg/ kg in final product expresse as isocyana moiety	
168	13075           15310	000009	127 <b>6</b> -9 diamino phenyl- triazine		yes	no	5			[ <sup>F28</sup> (1)]
169	16240	000009	dimethy	no 1-4,4'- matobipl	yes nenyl	no		(17)	1 mg/ kg in final product expresse as isocyana moiety	
170	16000	000009		no xybiphei	yes nyl	no	6			
171	38080	000009	3b <b>58zð</b> ic acid, methyl ester	yes	no	no				
172	37840	000009	3b&91z0ic acid, ethyl ester	yes	no	no				
173	60240	0000094		yes benzoic	no	no				
174	14740	000009	5 <del>0</del> 48-7 cresol	no	yes	no				
175	20050	000009	6n0Ethacr acid, allyl ester	yılic	yes	no	0,05			
176	11710	000009	6aððyBic acid, methyl ester	no	yes	no		(22)		
177	16955	000009	6 <b>e419y1</b> ene carbona		yes	no	30		SML expresse	ed

									as ethylene Residual content of 5 mg ethylene carbonat per kg of hydroge with max 10 g of hydroge in contact with 1 kg of food.	e
178	92800	000009	6469-5 thiobis( tert- butyl-3- methylp		no	yes	0,48			
179	48800	000009	dihydro 5,5'-		no Imethane	yes	12			
[ <sup>F30</sup> 180	17160	000009	7efagethol	no	yes	no		(33)]		
181	20890	000009	7n68th2acr acid, ethyl ester	yılic	yes	no		(23)		
182	19270	000009	7i <b>465</b> 04nic acid	no	yes	no				
183	21010	000009	7n8ctHacr acid, isobutyl ester	-	yes	no		(23)		
184	20110	000009	7 <b>n&amp;&amp;thl</b> acr acid, butyl ester	yrlöc	yes	no		(23)		
185	20440	000009	7 <b>H901</b> 4facr acid, diester	yılicc	yes	no	0,05			

			with ethylen	eglycol						
186	14020	000009	845 <b>ter4-</b> butylph	no enol	yes	no	0,05			
187	22210	000009	8083-9 methyls	no tyrene	yes	no	0,05			
188	19180	000009	9istopBth acid dichlori		yes	no		(27)		
189	60200	000009		yes vbenzoic	no	no				
190	18880	000009		no vbenzoic	yes	no				
191	24940	000010	0 <b>t@@<sub>f</sub>9</b> htl acid dichlori		yes	no		(28)		
192	23187	—	phthalic acid	no	yes	no		(28)		
193	24610	000010	0s#Azreme	no	yes	no				
194	13150	000010	0 <b>b§hzty</b> l alcohol	no	yes	no				
195	37360	000010	0b&dzald	eyheysde	no	no				(3)
196	18670 59280	000010	0h&XaOne	t <b>hys</b> tenete	e <b>tyres</b> nine	no		(15)		
197	20260	000010	lmÆthaci acid, cyclohe ester		yes	no	0,05			
198	16630	000010	l <b>d68h8</b> ny diisocya	l <b>no</b> ethan anate	ey∕€ <sub>5</sub> 4′-	no		(17)	1 mg/ kg in final product expresse as isocyan moiety	
199	24073	000010	lr <b>ettoric</b> in diglycic ether		yes	no	ND		Not to be used for articles	(8)

								in contact with fatty foods for which [ <sup>F3</sup> sim D1 and/ or D2 is laid down. For indire food contact only, behind a PET layer.	ulant I ct ct
200	51680	0000102		yes lthiourea	no a	yes	3		
201	16540	0000102	2 <b>d09h0</b> ny carbona	rlno te	yes	no	0,05		
202	23070	0000102		no nedioxy	yes )diacetic	no	0,05		[ <sup>F28</sup> (1)]
203	13323	0000102	bis(2-	no (ethoxy)	yes benzene	no	0,05		
204	25180	0000102		yes	yes	no			
	92640		',N'- tetrakis hydroxy	(-	thylened	liamine			
205	25385	000010	2 <b>4710145</b> y1a	mine	yes	no		40 mg kg hydro at a ratio of 1 k food to a maxir of 1,5 gr of hydro	gel g num ams

Status: Point in time view as at 31/12/2020.

# **Changes to legislation:** There are currently no known outstanding effects for the Commission Regulation (EU) No 10/2011. (See end of Document for details)

									Only to be used in hydroge intended for non- direct food contact use.	
206	11500	000010	Battylic acid, 2- ethylhez ester	no xyl	yes	no	0,05			
207	31920	000010	Baddspilc acid, bis(2- ethylhez ester	yes xyl)	no	yes	18	(32)		(2)
208	18898	000010		no /phenyl) de	yes	no	0,05			
209	17050	0000104	4276-7 ethyl-1- hexanol		yes	no	30			
210	13390 14880	000010		no roxymetl	yes nyl)cyclo	no hexane				
211	23920	000010:	5 <b>p38p4</b> on acid, vinyl ester	i <b>a</b> o	yes	no		(1)		
212	14200 41840	000010	5 <b>e6p</b> f@lao	chaena	yes	no		(4)		
213	82400	000010	546 <b>2-</b> 4 propyle dioleate	yes neglycol	no	no				
214	61840	000010	6424-9 hydroxy acid	yes vstearic	no	no				
215	14170	000010	5 <b>b3ity0</b> ic anhydri		yes	no				
216	14770	000010	6 <i>p</i> 44-5 cresol	no	yes	no				

217	15565	0000106 <del>146-</del> 7 dichlo	no robenzene	yes	no	12			
218	11590	0000106a6ByBa acid, isobut ester		yes	no		(22)		
219	14570 16750	0000106e <b>p9c8</b> 1	o <b>rølø</b> ydrin	yes	no	ND		1 mg/ kg in final product	(10)
220	20590	0000106 <del>n9dtli</del> 2a acid, 2,3- epoxy ester	crydøc propyl	yes	no	0,02			(10)
221	40570	0000106 <b>b917a8</b> 6	e yes	no	no				
222	13870	0000106198-9 butene	no	yes	no				
223	13630	0000106b999adi	enno	yes	no	ND		1 mg/ kg in final product	
224	13900	0000107291-7 butene	no	yes	no				
225	12100	0000107a&Byllo	nitttide	yes	no	ND			
226	15272 16960	0000107etlbyBe	ne <b>dia</b> mine	yes	no	12			
227	16990	0000107e2hiylle	negelyscol	yes	no		(2)		
	53650								
228	13690	000010748 <b>8</b> -0 butane	no ediol	yes	no				
229	14140	0000107b <b>912y6</b> i acid	c no	yes	no				
230	16150	0000108e@net1	ny <b>hao</b> ninoe	thyænsol	no	18			
231	10120	0000108a05tit acid, vinyl ester	no	yes	no	12			
232	10150	0000108a24tiZ	yes	yes	no				
	30280	anhyd	ride						
233	24850	0000108sil0ein anhyd		yes	no				

234	19960	000010	8m3ale6c anhydri	no de	yes	no		(3)	
235	14710	000010	8 <i>n</i> 3-9-4 cresol	no	yes	no			
[ <sup>F13</sup> 236	23050	000010		no nediami	yes ne	no	ND		(28)]
237	15910	000010		no	yes	no	2,4		
	24072		ainyaro	xybenze	ne				
238	18070	000010	8 <b>g55tar</b> ic anhydri		yes	no			
[ <sup>F31</sup> 239	19975	000010		yes	yes	no	2,5		
	25420		triamino triazine	0-1,3,5-					
	93720]								
240	45760	000010	8 <b>e9¢18</b> he	x <b>yda</b> min	eno	no			
[ <sup>F29</sup> 241	22960	000010	8p <b>9a5</b> n2ol	no	yes	no	3]		
242	85360	000010	9s <b>4</b> Baðic acid, dibutyl ester	yes	no	no		(32)	
243	19060	000010	9i <b>sobó</b> tyl vinyl ether	no	yes	no	0,05		(10)
244	71720	000010	9p66t0ne	yes	no	no			
245	22900	000010	9467-1 pentene	no	yes	no	5		
246	25150	000010	9 <b>t-019</b> a19yc	Internation	yes	no	0,6		
247	24820	000011	Ostu5etónic	yes	yes	no			
	90960		acid						
248	19540	000011		yes	yes	no		(3)	
	64800		acid						
249	17290	000011	0fuli7næric	yes	yes	no			
	55120		acid						
250	53520	000011		yes ebisstear	no amide	no			
251	53360	000011	0 <b>₩,N6</b> ethylene	yes ebisolear	no nide	no			
252	87200	000011	0s <b>44bi</b> c acid	yes	no	no			

253	15250	000011	046 <b>0-</b> 1 diamino	no butane	yes	no				
254	13720	000011		yes	yes	no		(30)		
	40580	-	butaned	iol						
255	25900	000011	0 <b>#888x3</b> ane	no	yes	no	5			
256	18010	000011	0g94tatric	yes	yes	no				
	55680		acid							
[ <sup>F30</sup> 257	13550	000011	0 <b>d9ør6</b> py	l <b>şæs</b> glyc	oyles	no				
	16660	002526	5-71-8							
	51760 ]									
258	70480	000011	l <b>pagn8</b> itic acid, butyl ester	yes	no	no				
259	58720	000011	l hb⁄þtðino acid	i <b>y</b> es	no	no				
260	24280	000011	ls20a6ic acid	no	yes	no				
261	15790	000011	1 <b>cH0tI0</b> y1c	metriami	nyæs	no	5			
262	35284	000011		yes hyl)etha	no nolamine	no	0,05		Not to be used for articles in contact with fatty foods for which [ <sup>F3</sup> simul D1 and/ or D2] is laid down. For indirect food contact only, behind	ant

									a PET layer.	
263	13326	000011	l <b>e#6#6</b> yle	nyægslycol	yes	no		(2)		
	15760									
	47680	_								
264	22660	000011	1466-0 octene	no	yes	no	15			
265	22600	000011	1487-5 octanol	no	yes	no				
266	25510	000011	2ŧØ₹ŧ <b>b</b> yle	nyeglyco	lyes	no				
	94320									
267	15100	000011	2430-1 decanol	no	yes	no				
268	16704	000011	2441-4 dodecer	no ne	yes	no	0,05			
269	25090	000011	2 <b>tet0</b> a <b>Z</b> th	ylænsegly	c <b>ye</b> s	no				
	92350									
270	22763	000011		yes	yes	no				
	69040		acid							
271	52720	000011	2 <b>e84</b> e <b>ā</b> mi	idjæs	no	no				
272	37040	000011	2 <b>b&amp;5rec</b> nic acid	yes	no	no				
273	52730	000011	2 <b>e8t6e1</b> c acid	yes	no	no				
274	22570	000011	2 <del>026a0</del> ec isocyan		yes	no		(17)	1 mg/ kg in final product expresse as isocyant moiety	
275	23980	000011	5p03plyle	nieo	yes	no				
276	19000	000011	5iddbiltei	neto	yes	no				
277	18280	000011	5 <b>h27</b> a&hl anhydri		nyætshylen	etotrahy	d <b>Ndp</b> htha	lic		
278	18250	000011	5 <b>h2&amp;a</b> chl acid	arroendoi	nyætshylen	etotrahy	d <b>Ndp</b> htha	lic		
279	22840 71600	000011	5pëntaer	ythesitol	yes	no				

280	73720	0000115p96sphosies acid, trichloroethy ester	no /l	no	ND			
281	25120	0000116tdt#aBluormet	hylenjæs	no	0,05			
282	18430	0000116hExafluonop	ropyl <b>eas</b>	no	ND			
283	74640	0000117p\$thalic yes acid, bis(2- ethylhexyl) ester	no	no	1,5	(32)	Only to be used as: (a)	<ul> <li>(7)</li> <li>plasticiser</li> <li>in</li> <li>repeated</li> <li>use</li> <li>materials</li> <li>and</li> <li>articles</li> <li>contacting</li> <li>non-fatty</li> <li>foods;</li> <li>technical</li> <li>support</li> <li>agent</li> <li>in</li> <li>concentration</li> <li>up</li> <li>to</li> <li>0,1 %</li> <li>in</li> <li>the</li> <li>final</li> <li>product.</li> </ul>
284	84880	0000119satiesylic yes acid, methyl ester	no	no	30			
285	66480	00001192427-1 yes methylene bis(4- methyl-6- tert- butylphenol	no	yes		(13)		
286	38240	0000119behzophynes		yes	0,6			
287	60160	0000120447-8 yes hydroxyben: acid,	zoic	no				

			ethyl ester							
288	24970		t <b>erbµi</b> nth acid, dimethy ester		yes	no				
289	15880	0000120		no	yes	no	6			
	24051	•	ainyaro	xybenze	ne					
290	55360	]	g <b>ā9i9</b> acid, propyl ester	yes	no	no		(20)		
291	19150	0000121	isolp15tha acid	atio	yes	no		(27)		
292	94560	0000122	ti20sopro	<b>pan</b> olan	nime	no	5			
293	23175	1	pfo2spho acid, triethyl ester	mous	yes	no	ND		1 mg/ kg in final product	(1)
294	93120		t288c4ipr acid, didodec ester		no	yes		(14)		
295	15940	0000123		yes	yes	no	0,6			
	18867		dihydro	xybenze	ne					
	48620									
296	23860	0000123	p <b>38</b> p6on	anhodehyde	yes	no				
297	23950	0000123	p <b>62p6</b> on anhydri		yes	no				
298	14110	0000123	b7û£y8alc	l <b>elo</b> yde	yes	no				
299	63840	0000123	lð∕œiðini acid	cyes	no	no				
300	30045	1	a <b>86ti</b> & acid, butyl ester	yes	no	no				
301	89120	1	sæn5c acid, butyl ester	yes	no	no				
302	12820	0000123	a <b>20la</b> ic acid	no	yes	no				

303	12130	000012	1วศีสักษา	yes	yes	no			 1
505	31730	000012	acid	yes	yes	110			
304	14320	000012	4e0prylic	Ves	VOS	no			 
304	41960	000012	acid	yes	yes	no			
305	15274	000012	1600 .4	t <b>hr</b> land	i progri to o	<b>n</b> 0	2.4		 
303	13274	0000124	4 <b>h@%a4</b> me	ingiened	туныте	no	2,4		
306	88960	000012	4s£tanวam	i <b>de</b> s	no	no			
307	42160	000012	4e <b>af99</b> n dioxide	yes	no	no			
308	91200	000012	6sulðr <b>6</b> se acetate isobutyi		no	no			
309	91360	000012	6suldrðse octaace		no	no			
310	16390	000012		no	yes	no	0,05		
	22437		dimethy propane						
311	16480	000012	6 <b>d5p8eD</b> ta	enyetshrito	yes	no			
	51200								
312	21490	000012	6 <b>H9&amp;</b> th7ac1	y <b>ılo</b> nitril	eyes	no	ND		
313	16650	000012	7 <b>d6p3h9</b> ny		yes	no	3		
	51570		sulphon	e					
314	23500	000012	7β91-3 pinene	no	yes	no			
315	46640	000012	8236-di- tert- butyl- p- cresol	yes	no	no	3		
316	23230	000013	lph7h9lic acid, diallyl ester	no	yes	no	ND		
317	48880	000013	dihydro	yes xy-4- ybenzop	no henone	yes		(8)	
318	48640	000013		yes xybenzo	no phenone	no		(8)	
319	61360	000013	hydroxy	yes 7-4- ybenzop	no henone	yes		(8)	

320	37680	000013	6 <b>b6û</b> z7bic acid, butyl ester	yes	no	no				
321	36080	000013	7a <b>6¢</b> ə <b>6</b> by palmitat		no	no				
322	63040	000013	8la21i7 acid, butyl ester	yes	no	no				
323	11470	000014	0a88yfic acid, ethyl ester	no	yes	no		(22)		
324	83700	000014	lri2:2n0le acid	iges	no	yes	42			
325	10780	000014	laððyðc acid, n- butyl ester	no	yes	no		(22)		
326	12763	000014	1243-5	yes	yes	no	0,05		Not	
	35170		aminoet	hanol					to be used for articles in contact with fatty foods for which [ <sup>F3</sup> simul D1 and/ or D2] is laid down. For indirect food contact only, behind a PET layer.	ant
327	30140	000014	la <b>78tic</b> acid,	yes	no	no				

			ethyl ester							
328	65040	000014	1#821-0211ic acid	yes	no	no				
329	59360	0000142	2h <b>62</b> ahoi acid	cyes	no	no				
330	19470 63280	000014	31407ri72 acid	yes	yes	no				
331	22480	000014	3108-8 nonanol	no	yes	no				
332	69760	000014	3028y2 alcohol	yes	no	no				
333	22775 69920	000014	40662117c acid	yes	yes	no	6			
334	17005	000015	le£6y#enc	eimoine	yes	no	ND			
335	68960	000030	1002achid	eyes	no	no				
336	15095	0000334		yes	yes	no				
	45940		decanoi acid	с						
337	15820	000034		no benzoph	yes enone	no	0,05			
338	71020	000037	3p <b>49</b> n9ito acid	leyices	no	no				
339	86160	000040	9s <b>21</b> c@n carbide	yes	no	no				
[ <sup>F32</sup> 340	47440	000046	1 <b>d5&amp;ya</b> no	djiesnide	no	no	60]			
341	13180	000049	8 <b>666y8</b> lo	[2n@.1]he	pte2-	no	0,05			
	22550		ene							
342	14260	0000502	2 <b>e4p</b> rðlao	ctrone	yes	no		(29)		
343	23770	0000504	446 <b>3–</b> 2 propane	no diol	yes	no	0,05			
[ <sup>F29</sup> 344	13810	000050	· ·	no	yes	no	0,05	15		(21)
	21821]		butaned formal	101				30		
345	35840	000050	6aBacDidi acid	cyes	no	no				
346	10030	0000514	4ab0efic acid	no	yes	no				
347	13050	000052	8t <b>:14:0</b> 11it acid	ti <b>n</b> o	yes	no		(21)		

	25540	]								
348	22350	000054	4n63ri8tic	yes	yes	no				
	67891	-	acid							
349	25550	000055	2 <b>trifth</b> ðllit anhydri		yes	no		(21)		
350	63920	000055	7lizynocei acid	riges	no	no				
351	21730	000056	3 <del>3</del> 45-1 methyl- butene	no 1-	yes	no	ND		Only to be used in polypro	(1) pylene
352	16360	000057		no Iphenol	yes	no	0,05			
353	42480	000058	4 <b>c0£b8</b> ni acid, rubidiui salt		no	no	12			
354	25210	000058	4284–9 toluene diisocya	no inate	yes	no		(17)	1 mg/ kg in final product expresse as isocyan moiety	ed
355	20170	000058	5n051hacı acid, tert- butyl ester	yrlöc	yes	no		(23)		
356	18820	000059	2141-6 hexene	no	yes	no	3			
357	13932	000059	8332-3 buten-2 ol	no	yes	no	ND		Only to be used as a co- monom for the preparat of polymer additive	tion ric
358	14841	000059	9464-4 cumylp	no henol	yes	no	0,05			

359	15970	000061	149 <b>9</b> -4	yes	yes	no		(8)		
	48720	1	dıhyaro	oxybenzo	phenone					
360	57920	000062	20g <b>6</b> ye∂rol trihepta	l yes inoate	no	no				
361	18700	000062	2911 <b>6-</b> 8 hexanec		yes	no	0,05			
362	14350	000063	0 <b>c@fb0</b> n monoxi		yes	no				
363	16450	000064	610 <b>6-</b> 0 dioxola		yes	no	5			
[ <sup>F29</sup> 364	15404	0000653	52 <b>1647:-35</b> ,6-		yes ol	no	5		(b)	a co- monomer in poly(ethylene- co- isosorbide terephthalate); a co- monomer at levels of up to 40 mole % of the diol component in combination with ethylene glycol and/ or 1,4- bis(hydroxymethyl)cyclohe for the production

Status: Point in time view as at 31/12/2020.

**Changes to legislation:** There are currently no known outstanding effects for the Commission Regulation (EU) No 10/2011. (See end of Document for details)

									together with 1,4-	rosorbito	ne
365	11680	000068	9a¢2yBc acid, isoprop ester		yes	no		(22)	1		
366	22150	000069	1437-2 methyl- pentene		yes	no	0,05				
367	16697	000069	3n23-2 dodecar acid	no nedioic	yes	no					
368	93280	000069	3 <b>tBiođ</b> ipr acid, dioctado ester		no	yes		(14)			
369	12761	000069		no odecanoi	yes c	no	0,05				
370	21460	000076	0 <del>n93t10</del> acı anhydri		yes	no		(23)			
371	11510 11830	000081	8a6ityllic acid, monoes with ethylend	ter	yes	no		(22)			

372	18640	000082	2 <b>h0s</b> a0ne diisocya	t <b>hy</b> lene mate	yes	no		(17)	1 mg/ kg in final product express as isocyan moiety	ed
373	22390	000084		no lenedica 1	yes rboxylic	no	0,05			
374	21190	000086	8n76tHacr acid, monoes with ethylene	ter	yes	no		(23)		
375	15130	000087	2405-9 decene	no	yes	no	0,05			
[ <sup>F31</sup> 376	66905	000087		yes yrrolido	no ne	no	60]			
377	12786	000091	9330-2 aminop	no ropyltrie	yes thoxysila	no ine	0,05		Residua extracta content of 3- aminop to be less than 3 mg/ kg filler when used for the reactive surface treatme: of inorgan fillers. SML = 0,05 mg kg when used for the surface	ble ropyltriethoxysila nt ic

									treatmen of material and articles.	
378	21970	000092		no Imethac	yes rylamide	no	0,05			
379	21940	0000924		no lacrylan	yes nide	no	ND			
380	11980	000092	5a6fylic acid, propyl ester	no	yes	no		(22)		
381	15030	000093	1e <b>§8</b> 140c	tene	yes	no	0,05		Only to be used in polymer contactin foods for which simulant A is laid down	ng
382	19490	000094	71 <b>:00:41::6</b> 1ac	tam	yes	no	5			
383	72160	000094	8265-2 phenyli	yes ndole	no	yes	15			
384	40000	000099	bis(octy (4- hydroxy di-tert-	ilino)-1,3		yes	30			
385	11530	000099	Pa6ityllic acid, 2- hydroxy ester	no vpropyl	yes	no	0,05		SML expresse as the sum of acrylic acid, 2- hydroxy ester and acrylic acid,	

									ester. It may contain up to 25 % (m/ m) of acrylic acid, 2-	visopropyl visopropyl 8-23-2).
386	55280	0	gallit acid, octyl ester	yes	no	no		(20)		
387	26155	0001072	<del>16</del> 3-5 vinylim	no idazole	yes	no	0,05			[ <sup>F28</sup> (1)]
388	25080	00011204 t	136-1 tetradec	no ene	yes	no	0,05			
389	22360	00011412		no lenedica	yes rboxylic	no	5			
390	55200		gā2li5 acid, dodecyl ester	yes	no	no		(20)		
[ <sup>F3</sup> 391	22932		pæðf <b>fu</b> or perfluor ether		yes	no	0,05		Only to be used in: 	anti- stick coatings; fluoro- and perfluoropolymers intended for repeated use applications where the contact

								ratio is 1 dm 2 surface in contact with at least 150 kg food. ]
392	72800	000124	lpMosphoyies acid, diphenyl 2- ethylhexyl ester	no	yes	2,4		
393	37280	0001302	2b78tOnitoyes	no	no			
394	41280	000130	5e612-i0im yes hydroxide	no	no			
395	41520	000130	5 <b>eāReiš</b> im yes oxide	no	no			
396	64640	000130	9m42gBesityters hydroxide	no	no			
397	64720	000130	9m4&gflesiyners oxide	no	no			
[ <sup>F13</sup> 398	35760	000130	9 <b>a64im</b> onyyes trioxide	no	no			(6)]
399	81600	000131	0p58a3siuryes hydroxide	no	no			
400	86720	000131	0sððiûm yes hydroxide	no	no			
401	24475	000131	3s8 <b>ðiiû</b> m no sulphide	yes	no			
402	96240	0001314	4z1n3e2 yes oxide	no	no			
403	96320	0001314	4 <b>z91&amp;</b> 3 yes sulphide	no	no			
404	67200	000131	7 <b>n36l%</b> bde <b>yæs</b> m disulphide	no	no			
405	16690	000132	ld7vih0ylbenozene	yes	no	ND	SML express	(1) ed

406	83300	000132		yes	no	no		as the sum of divinylbenzene and ethylvinylbenzene. It may contain up to 45 % (m/ m) of ethylvinylbenzene.
			monoste					
407	87040		0s <b>4di4</b> m tetrabor	yes ate	no	no	(16)	
408	82960	000133	048 <b>20-</b> 9 propyle monool	yes neglycol eate	no	no		
409	62240	000133	2ifto7h-2 oxide	yes	no	no		
[ <sup>F29</sup> 410	62720	000133	2kā8ł <i>ī</i> n	yes	no	no		Particles can be thinner than 100 nm only if incorporated at a quantity of less than 12 % w/w in an ethylene vinyl alcohol copolymer (EVOH) inner layer of a multi- layer structure, in which the

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							mıgr	ation
							of	
							parti	cles
							into	
							the	
							food	.]
411	42080	000122	3e <b>arb4</b> n	yes	<b>n</b> 0	no	Prim	
411	42000	000133	black	yes	no	no	parti	alor
			UIACK				of 10	
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								of cyclohe extract at 386 nm < 0,02 AU for a 1 cm cell or < 0,1 AU for a 5 cm cell, determin accordin to a generall recognis method of analysis Benzo(a content: max 0,25 mg kg carbon black. Maximu use level of carbon black in the polymer 2,5 % w/w.	ned ng y sed .)pyrene //
412	45200	000133	iodide	yes	no	no	(6)		
413	35600		6 <b>a21</b> 1460ni hydroxi	de	no	no			
414	87600	000133	8sðøðjæan monola	yes urate	no	no			
415	87840	000133	8s <b>4ilbit</b> an monoste		no	no			
416	87680	000133	8s <b>4</b> BbRan monool		no	no			

417	85680	000134	3sf3⁣ acid	yes	no	no				
418	34720	000134	4a203mlini oxide	uynes	no	no				
419	92150	000140	ltannic acids	yes	no	no			Accordit to the JECFA specific	-
420	19210	000145	9isopHtha acid, dimethy ester		yes	no	0,05			
[ <sup>F32</sup> 421	13000	000147		no dimetha	yes namine	no		(34)]		
422	38515	000153	bis(2-	yes zolyl)sti	no Ibene	yes	0,05			(2)
423	22937	000162	3p@5f1&101 ether	oppropylj	o <b>yefs</b> uorc	vioyl	0,05			
424	15070	000164	7 <b>1,1%-</b> 1 decadie	no ne	yes	no	0,05			
425	10840	000166	3að9ylic acid, tert- butyl ester	no	yes	no		(22)		
426	13510	000167	525 <b>21-</b> 3 bis(4-	no	yes	no			In complia	nce
	13610			(phenyl) (opyl)	propane				with Commis Regulat (EC) No 1895/20	ssion ion
427	18896	000167		no ymethyl xene	yes )-1-	no	0,05			
428	95200	000170	trimethy tris(3,5- di-tert- butyl-4-		no penzene	no				
429	13210	000176		no yclohexy	yes 1)methar	no ne	0,05			<u> </u>

430	95600	000184	tris(2- methyl- hydroxy tert- butylph	y-5-	no	yes	5				
431	61600	000184	butane 3205-6 hydroxy n-	yes 7-4-	no	yes		(8)			
				ybenzopl	nenone						
432	12280	000203	5a <b>ð5pf</b> c anhydri	no de	yes	no					
433	68320	000208	2079adec 3-(3,5- di-tert- butyl-4- hydroxy		no propiona	yes te	6				
434	20410	000208	2n8dth7ac1 acid, diester with 1,4- butaned	ydioc	yes	no	0,05				
435	14230	000212	3 <b>∈2∳</b> r@lao sodium salt	c <b>tao</b> n,	yes	no		(4)			
436	19480	000214	6lædri <b>6</b> acid, vinyl ester	no	yes	no					
437	11245	000215	6a9i7yflic acid, dodecyl ester		yes	no	0,05			(2)	
[ <sup>F31</sup> 438	13303	000216	2 <b>b7s(-2</b> 5,6- diisopro carbodi	pylphen	yes yl)	no	0,05		and its hydroly product 2,6-	pylphen	yl)carbodiimide ie
439	21280	000217	7 <b>n7et</b> 40acı acid,	yrlicc	yes	no		(23)			

			phenyl ester							
440	21340	000221	0n2&lfaci acid, propyl ester	rynlioc	yes	no		(23)		
441	38160	000231	5 <b>b68z</b> 6ic acid, propyl ester	yes	no	no				
442	13780	000242	butaned bis(2,3-		yes er	no	ND		Residua content = 1 mg/ kg in final product expresse as epoxygi Molecu weight is 43 Da.	ed oup.
443	12788	000243		no ndecanoi	yes c	no	5			
444	61440	000244	hydroxy	yes 7-5'- henyl)be	no enzotriaz	no ole		(12)		
445	83440	000246	6 <b>p99</b> opho acid	syndsoric	no	no				
446	10750	000249	5 <b>að <del>fyll</del>ic</b> acid, benzyl ester	no	yes	no		(22)		
447	20080	000249	5 <b>n3614</b> tacı acid, benzyl ester	yrlöc	yes	no		(23)		
448	11890	000249	9a <b>59y4</b> c acid, n-octyl ester	no	yes	no		(22)		
[ <sup>F30</sup> 449	49840	000250	0el8&etlade disulphi		no	yes	0,05 ]			

450	24430	000256	ls <b>88a8</b> ic anhydri		yes	no				
451	66755	000268	2220-4 methyl- isothiaz one		no	no	0,5		Only to be used in aqueous polyme dispersi and emulsio	ons
[ <sup>F31</sup> 452	38885	000272:	bis(2,4- dimethy (2- hydroxy n-	yes (lphenyl) 7-4- yphenyl)		no	5]			
453	26320	000276	8 <b>v02y1</b> trii	menthoxy	s <b>ilen</b> e	no	0,05			(10)
454	12670	000285:	amino-3 aminor	no 3- hethyl-3,: ylcycloho	yes 5,5- exane	no	6			
455	20530	000286	7 <del>m4ð</del> thacr acid, 2- (dimeth ethyl ester	ylic ylamino	yes )-	no	ND			
456	10810	000299	Ba0ByEc acid, sec- butyl ester	no	yes	no		(22)		
457	20140	0002998	Smlæthæci acid, sec- butyl ester	yrlöc	yes	no		(23)		
458	36960	000306	lb <b>&amp;ħe4</b> har	njide	no	no				
459	46870	000313:	tert- butyl-4-		no hosphon	no ic				

			dioctade ester	ecyl						
460	14950	000317	8 <b>e≸∂l</b> ∂he isocyan		yes	no		(17)	1 mg/ kg in final product expresse as isocyan moiety	ed
461	22420	000317	34 <b>72–</b> 6 naphtha diisocya		yes	no		(17)	1 mg/ kg in final product expresse as isocyant moiety	ed
462	26170	000319:	vinyl- N-	no cetamide	yes e	no	0,02			[ <sup>F28</sup> (1)]
463	25840	000329		no vlolpropa acrylate	yes ine	no	0,05			
464	61280	0003293	hydroxy n-	yes 7-4- ybenzop	no henone	yes		(8)		
465	68040	000333	naphtho (1,2- D)triazo yl]-3-		no	no				
466	50640	000364	8 <b>d1-81-8</b> octyltin dilaurat		no	no		(10)		
[ <sup>F33</sup> 467	14800 45600]	3724-65	orotonic acid	yes	yes	no		(35)		
468	71960	000382	5p <b>26</b> fHuor acid, ammon salt	<b>oæs</b> tanoi ium	mo	no			Only to be used in repeated use articles,	

									sintered at high tempera	
469	60480	000386	hydroxy di-tert- butylph	yes 7-3,5'- enyl)-5- enzotriaz	no	yes		(12)		
470	60400	000389	hydroxy tert- butyl-5' methylp			yes		(12)		
471	24888	000396			yes c	no	0,05			
472	66560	000406	methyle methyl-	yes nebis(4- 6- xylphene		yes		(5)		
473	12265	000407	4a@0pic acid, divinyl ester	no	yes	no	ND		5 mg/ kg in final product Only to be used as co- monom	
474	43600	000408	chloroa triaza-1	damanta		no	0,3			
475	19110	000409	isocyan isocyan	no ato-3- atomethy ylcycloho		no		(17)	1 mg/ kg in final product express as isocyan moiety	ed

476	16570	000412	8 <b>d7βh8</b> ny diisocy <i>t</i>		4ýes	no		(17)	1 mg/ kg in final product expresse as isocyant moiety	
477	46720	000413	024Q-di- tert- butyl-4- ethylpho		no	yes	4,8			(1)
478	60180	000419		yes /benzoic yl	no	no				
479	12970	000419	6a <b>25kti</b> c anhydri	no de	yes	no				
480	46790	000422	1380-di- tert- butyl-4- hydroxy acid, 2,4-di- tert- butylph ester	benzoic	no	no				
481	13060	000442		no etricarbo ide	yes xylic	no	0,05		SML expresse as 1,3,5- benzene acid	[ <sup>F28</sup> (1)] ed etricarboxyl
482	21100	000465	5 <b>n3ettha</b> cr acid, isoprop ester	5	yes	no		(23)		
483	68860	000472		yes osphonic	no	no	0,05			
484	13395	000476	/	no roxymetl	yes nyl)propi	no onic	0,05			(1)
485	13560	000512	4d3Cy&lol	h <b>e</b> øylme	thænse-4,4	'no		(17)	1 mg/	(10)
	15700		diisocya	inate					kg in final product	

									expressed as isocyanat moiety	
486	54005	000513	6e <b>tl4y</b> Ieno N- palmita N'- stearam	mide-	no	no				
487	45640	000523	cyano-3	yes ,3- lacrylic	no	no	0,05			
488	53440	000551		yes ebispalm	no itamide	no				
489	41040	000574	Bealoi2um butyrate		no	no				
490	16600	000587	3 <b>də́ph</b> êny diisocya		ey£,\$1'-	no		(17)	1 mg/ ( kg in final product expressed as isocyanat moiety	
491	82720	000618		yes neglycol te	no	no				
492	45650	000619	cvano-3	lacrylic	no	no	0,05			
493	39200	000620	hydroxy hydroxy			no onium	1,8			
494	62140	000630	3h3ypofph acid	o <b>sph</b> orou	<b>IS</b> NO	no				
495	35160	000664	2631-5 amino-1 dimethy		no	no	5			

496	71680	000668	BptAtBer tetrakis (3,5- di-tert- butyl-4- hydroxy propion	[3- yphenyl)	no	no			
497	95020	000684	62520,40 trimethy pentane diisobu	diol	no	no	5	Only to be used in single- use gloves	
498	16210	000686	dimethy		yes nexylmet	no hane	0,05	Only to be used in polyami	(5) des
499	19965 65020	000691	5n1ælið acid	yes	yes	no		In case of use as a monome only to be used as a co- monome in aliphatic polyeste up to maximus level of 1 % on a molar basis	er s
500	38560	000712	bis(5- tert- butyl-2-	yes azolyl)th	no iophene	yes	0,6		
501	34480		alumini fibers, flakes and powder		no	no			

502	22778	000745		no benzenes	yes ulphony	no I	0,05			[ <sup>F28</sup> (1)]
503	46080	000758	5β39-9 dextrin	yes	no	no				
504	86240	000763	lsflœðn dioxide	yes	no	no			For syntheti amorph silicon dioxide primary particles of 1 – 100 nm which are aggrega to a size of 0,1 - 1 µm which may form agglom within the size distribu of 0,3 µm to the mm size.	ous s ted
505	86480	000763	ls <b>00i:ō</b> m bisulphi		no	no		(19)		
506	86920	0007632	2s0 <b>0i0</b> m nitrite	yes	no	no	0,6			
507	59990	000764	7 <b>hQtl#0</b> cl acid	løæisc	no	no				
508	86560	000764	7s <b>dđi6</b> m bromide		no	no				
509	23170 72640	0007664	4pb8spho acid	o <b>ņie</b> s	yes	no				
510	12789 35320	0007664	4a#1m7on	iayes	yes	no				

511	91920	000766	4s@BpDuri acid	igyes	no	no			
512	81680	000768	lpbta0siu iodide	nynes	no	no	(6)		
513	86800	000768	ls <b>8đi</b> đm iodide	yes	no	no	(6)		
514	91840	000770	4s <b>&amp;4p</b> Dur	yes	no	no			
515	26360 95855	000773	2wlatef	yes	yes	no		In complia with Directiv 98/83/ EC <sup>b</sup>	
516	86960	000775	7s <b>8đi</b> ữm sulphite	2	no	no	(19)		
517	81520	000775	8 <b>p02a3</b> siu bromide		no	no			
518	35845	000777	la <del>1a</del> 600ido acid	oyies	no	no			
519	87120	000777	2s <b>98</b> iữm thiosulp		no	no	(19)		
520	65120	000777	3n0angan chloride		no	no			
521	58320	000778	2g42phite	yes	no	no			
522	14530	000778	2 <b>e50</b> o£ine	no	yes	no			
523	45195	000778	7 <b>€ð∲<del>p</del>€</b> r bromide		no	no			
524	24520	000800	lsðŷbæar oil	no	yes	no			
525	62640	000800	lj <b>ðþað</b> wax	yes	no	no			
526	43440	000800	le <b>₹fe</b> \$in	yes	no	no			
527	14411	000800		yes	yes	no			
	42880		oil						
528	63760	0008002	2l∉cĩiŧБin	yes	no	no			
529	67850	000800	2 <b>н53</b> nFan wax	yes	no	no			
530	41760	000800	6 <b>e44d&amp;</b> lil wax	læes	no	no			
531	36880	000801	2 <b>689</b> 53va	xyes	no	no			

532	88640	000801.	3s <b>07b</b> ean oil,	yes	no	no	60 30(*)	(32)	(*)	In
			epoxidi	sed						the
			epoman	Jea						case
										of
										PVC
										gaskets
										used
										to
										seal
										glass
										jars
										containi
										infant
										formula
										and
										follow-
										on formulae
										as defined
										defined
										by Dimetie
										Directiv
										2006/14
										EC
										or
										processe
										cereal-
										based
										foods
										and
										baby
										foods
										for
										infants
										and
										young
										children
										as
										defined
										by
										Directiv
										2006/12
										EC,
										the
										SML
										is
										lowered
										to
									m	g/30
										kg.
									Oxirane	-
									< 8 %,	

								iodine number < 6.	
533	42720	000801	5 <b>eana</b> ub wax	ayes	no	no			
534	80720	000801	7 <b>pb6yp</b> hc acids	spelsoric	no	no			
535	24100	000805	0 <b>r:09</b> i+17	yes	yes	no			
	24130								
	24190								
	83840								
536	84320	000805	Ord Sirfs hydroge ester with methane		no	no			
537	84080	000805	0 <b>F@\$i+8</b> ester with pentaery	yes /thritol	no	no			
538	84000	000805	0rðslirf, ester with glycero	yes	no	no			
539	24160	0008052	2 <b>rð©i</b> #6 tall oil	no	yes	no			
540	63940	000806	2lɨဠົກວົຣul acid	p <b>les</b> nic	no	no	0,24	Only to be used as dispersa for plastics dispersi	
541	58480	000900	0 <b>g0ih</b> 5 arabic	yes	no	no			
542	42640	000900	0e <b>åi</b> tbøxy	n <b>yes</b> hylc	e <b>ha</b> lose	no			
543	45920	000900	0 <b>då6n</b> ðnai	yes	no	no			
544	58400	000900	0 <b>g3ıa</b> r0 gum	yes	no	no			
545	93680	000900	0 <b>titatgal</b> car gum	ntyhes	no	no			
546	71440	000900	0 <b>p69tö</b> n	yes	no	no			

547	55440	0009000	)~74(h fen	Vec	no	no			
547 548	42800	0009000	-	yes	no	no			
	_			yes	no	no			
549	80000	0009002	vax	ylycense	no	no			
550	81060	0009003	<b>вр01ур</b> го wax	p <b>yds</b> ne	no	no			
551	79920	0009003 0106392			no	no			
552	81500	0009003	₿ <b>₽ð</b> 9y∈	y <b>yey</b> rroli	ctoone	no		sha mee the pur crite as l dow in Cor Dire	stance ll et ity eria aid /n nmission ective 8/84/
553	14500 43280	0009004	<b>l∈∂1ી₊fi</b> os	eyes	yes	no			
554	43300		eðfluðos acetate butyrate	-	no	no			
555	53280	0009004	lefð7yBcel	lydesse	no	no			
556	54260	0009004	lef18ythy	d <b>yex</b> yeth	y <b>io</b> ellulo	SICO			
557	66640	0009004	l <b>n50th5</b> yle	thysicellu	lloose	no			
558	60560	0009004	l <b>h6y2l+0</b> xy	<b>syter</b> sylcel	l <b>u</b> kose	no			
559	61680	0009004	l <b>h6y4l</b> r∂xy	<b>yras</b> pylco	eHalose	no			
560	66700	0009004	hteithylk	<b>yddrs</b> oxyp	mopylcel	unlose			
561	66240	0009004	ln6e7th5y1c	eyt <b>es</b> lose	no	no			
562	22450	0009004	h7000el	lunkose	yes	no			
563	78320	0009004		y <b>less</b> egly cinoleate		yes	42		
			slæres,	yes	yes	no			

565	61120	0009005h2y7H0xy starch	veytebsyl	no	no		
566	33350	0009005alginлс acid	yes	no	no		
567	82080	00090051327-2 propyle alginate	yes neglycol	no	no		
568	79040	0009005p <b>64</b> y5th sorbitan monola		cnb	no		
569	79120	0009005 <b>p65</b> y6th sorbitan monool		cnb	no		
570	79200	0009005p66y&th sorbitan monopa		cnb	no		
571	79280	0009005 <b>p67</b> y8th sorbitan monoste		cnb	no		
572	79360	0009005pöØyðth sorbitan trioleate		cnb	no		
573	79440	0009005pøly4th sorbitan tristeara		cnb	no		
574	24250	0009006r <b>04b6</b> r,	yes	yes	no		
	84560	natural					
575	76721	0063148 <b>p62y6l</b> im (Mw > 6 800 Da)	lıştehsylsile	<b>xa</b> ne	no		Viscosity at 25 °C not less than 100 cSt $(100 \times 10^{-6} \text{ m}^2/\text{s})$
576	60880	0009032h4/2l+20xy	<b>eyteb</b> sylme	t <b>hy</b> lcellu	lose		
577	62280	0009044istobutyl butene copolyn		no	no		
578	79600	0009046 <b>p01y9</b> th tridecyl		cnb	no	5	For materials and

			ether phospha	ate					(EO $\leq 11$ ) tridecyl ether phospha (mono- and dialkyl ester) with a maximu 10 % content of	yleneglycol ite im yleneglycol
579	61800	000904	9h <b>ỹd</b> rðxy starch	<b>ynas</b> pyl	no	no				
580	46070	001001	6e20-3 dextrin	yes	no	no				
581	36800	001002	2b <b>at</b> it&m nitrate	yes	no	no				
582	50240	001003	9 <b>d3-3h-5</b> octyltin bis(2- ethylhez maleate	xyl	no	no		(10)		
583	40400	001004	3bb1cm nitride	yes	no	no		(16)		
584	13620	001004	3bari3 acid	yes	yes	no		(16)		
585	40320 41120	001004	3e <b>āl</b> ci4ım		no	no				
	(5200	001004	chloride							
586	65280	001004	3 <b>n∠</b> an hypoph		no	no				
587	68400	001009	40 <b>&amp;fa8</b> ec	y <b>yes</b> ucan	idæ	yes	5			

588	64320	001037	7litiliiu2m y iodide	/es	no	no		(6)		
589	52645	001043	6e <b>0</b> 8-151 - y eicosenar	yes nide	no	no				
590	21370	001059:	5n&etHacry acid, 2- sulphoeth ester		yes	no	ND			(1)
591	36160	001060:	5 <b>a00</b> 9 <b>i</b> tbyly stearate	/es	no	no				
592	34690	001109	7 <b>a59n9</b> iniuy magnesiu carbonate hydroxid	ım e	no	no				
593	44960	0011104	eobalt y oxide	/es	no	no				
594	65360	0011129	Pr <b>60</b> n§ganey oxide	8 <b>e</b> s	no	no				
595	19510	0011132	24i7gh&cellu	adose	yes	no				
596	95935	0011138	B <b>x6a6at12</b> an y gum	/es	no	no				
597	67120	001200	1m2i6ca2 y	/es	no	no				
598	41600		4eåltei7um y 3sûltpHoalu		no	no				
599	36840	001200	7b <b>ล์ธ์หว</b> ์m y tetraborat		no	no		(16)		
600	60030	0012072	2k90lrbmay	geneesite	no	no				
601	35440	0012124	4a977a90nig bromide	MEB	no	no				
602	70240	001219	80 <b>23k</b> ærite	yes	no	no				
603	83460	001226	9₱ <b>₮</b> 8ө₽₽һу₰	lite	no	no				
604	60080	0012304	4h6y5d+r&talg	ites	no	no				
605	11005	0012542	2aðfy⁄lic r acid, dicyclope ester	10 entenyl	yes	no	0,05			(1)
606	65200	001262	6 <b>n&amp;&amp;ng</b> aney hydroxid		no	no				
607	62245	001275	lif2001-3 y phosphid	yes e	no	no			Only to be used	

									in PET polymer and copolyn	
608	40800		34] <b>2</b> -8 butylide bis(6- tert- butyl-3- methylp ditridec phosphi	henyl- yl	no	yes	6			
609	83455	0013445	5p <b>5y602</b> ho acid	syndsorou	sno	no				
610	93440		B <b>ti6a</b> ni/um dioxide	iyes	no	no				
611	35120	0013560	)349-1 aminocr acid, diester with thiobis (2- hydroxy ether		no	no				
612	16694	0013811	₩ <b>,0N2</b> divinyl- imidazo		yes	no	0,05			(10)
613	95905	001398	3wlo7H@stc	yite	no	no				
614	45560	0014464	<b>le4iisŧ</b> øba	l <b>ite</b> s	no	no				
615	92080	0014807	7 <b>t-916</b> -6	yes	no	no				
616	83470	0014808	8q61ar7z	yes	no	no				
617	10660	0015214	acrylam		yes ulphonic	no	0,05			
618	51040		5 <b>d79n-2</b> octyltin mercapt	yes oacetate	no	no		(10)		
619	50320		ld581-1 octyltin bis(2- ethylhex mercapt		no )	no		(10)		

620	50720	001557	1 <b>d60n-5</b> octyltin dimaleate	yes e	no	no		(10)	
621	17110	001621	9575-3 ethyliden ene	no nebicycl	yes o[2,2,1]ł	no nept-2-	0,05		(9)
622	69840	001626	0 <del>009y</del> fpalr	<b>yets</b> amid	eno	yes	5		
623	52640	001638	9d8&801mite	yes	no	no			
624	18897	001671	2664-4 hydroxy- naphthal acid		yes oxylic	no	0,05		
625	36720	001719	4b <b>a0iu2</b> m hydroxid		no	no			
626	57800	001864	l <b>g57ee</b> roly tribehena		no	no			
627	59760	001956	9h2iht2te	yes	no	no			
628	96190	002042	7 <b>z5x&amp;</b> 1 hydroxid	yes le	no	no			
629	34560	002164	5 <b>a5un</b> n2iniu hydroxid		no	no			
630	82240	002278	811 <b>2</b> -8 propylen dilaurate		no	no			
631	59120	002312	81764-7 hexametl bis(3- (3,5- di-tert- butyl-4- hydroxyg		no propiona	yes mide)	45		
632	52880	002367	6409-7 ethoxybe acid, ethyl ester	yes enzoic	no	no	3,6		
633	53200	002394	9266-8 ethoxy-2 ethyloxa		no	yes	30		
634	25910	002480	0 <del>tr1p</del> r0pyli	eneglyc	oyles	no			
635	40720	002501	3tdr6-5 butyl-4- hydroxya	yes anisole	no	no	30		

636	31500	0025134a5itylic acid, acrylic acid, 2- ethylhe ester, copolyn	xyl	no	no	0,05	(22)	SML expressed as acrylic acid, 2- ethylhexyl ester
637	71635	002515 lp26t6er dioleat	y the sitol	no	no	0,05		Not to be used for articles in contact with fatty foods for which [ <sup>F3</sup> simulant D1 and/ or D2] is laid down
638	23590 76960	0025322p68y3th	y <b>yeis</b> egly	cyes	no			
639	23651	0025322 <b>p69y</b> #rc	nwdeneol	weed	no			
057	80800		pydenegi	yyxa	110			
640	54930	0025359fØthrfald naphthe copolyt	ol,	- no	no	0,05		
[ <sup>F3</sup> 641	22331	trimeth and (55-65 w/ w)1,6- diamin	% 0-2,2,4- ylhexane		no	0,05 ]		
642	64990	0025736n6dle2c anhydr	yes	no	no			The fraction

			styrene, copolymer sodium salt	. ,					with molecul weight below 1 000 Da [ <sup>F3</sup> shall] not exceed 0,05 % (w/w)	
643	87760	002626	6s <b>6i7bî</b> tan ye monopalm		no	no				
644	88080	002626	6s <b>5f9il</b> tan ye trioleate	es	no	no				
645	67760	002640	ln&6n5- ye n- octyltin tris(isoocty mercaptoa	yl	no )	no		(11)		
646	50480	002640	l <b>d9-7n-8</b> ye octyltin bis(isoocty mercaptoa	/l	no )	no		(10)		
647	56720	002640	2g <b>13eð</b> rol ye monohexa		no	no				
648	56880	002640	2g <b>1%e6</b> rol ye monooctar		no	no				
649	47210	002642	7 <b>d0fu6</b> ylt <b>hje</b> acid polymer	ostanno	onic	no			Molecu unit = $(C_8H_{18}S)$ (n = 1,5-2)	
650	49600	002663	6d0thetthylyi bis(isoocty mercaptoa	/l	no )	no		(9)		
651	88240	002665	8s <b>øØ&gt;it</b> an ye tristearate	es	no	no				
652	38820	002674	lb5s(27,4- ye di-tert- butylpheny pentaeryth diphosphit	yl) ritol	no	yes	0,6			
653	25270	002674	7 <b>290</b> -0 no toluene diisocyana dimer		yes	no		(17)	1 mg/ kg in final product	(10)

									express as isocyan moiety	
654	88600	002683	6s <b>4</b> ī/bitol monoste	-	no	no				
655	25450	002689	6 <b>tr48y0</b> lo	dæoanedi	in <b>ges</b> hano	lno	0,05			
656	24760	002691	4stArenes acid	sunpohonic	yes	no	0,05			
657	67680	002710	n- octyltin tris(2- ethylhez		no )	no		(11)		
658	52000	002717	6 <b>d87le0</b> cyl acid	bænzene	s <b>ul</b> phoni	cno	30			
659	82800	002719		yes neglycol urate	no	no				
660	47540	002745	8d90e8t- dodecyl disulphi		no	yes	0,05			
661	95360	002767	tris(3,5- di-tert- butyl-4- hydroxy	vbenzyl)	no -1,3,5- 1,3H,5H	yes -	5			
662	25927	002795	tris(4-	no (phenol)	yes ethane	no	0,005		Only to be used in polycar	[ <sup>F28</sup> (1)]
663	64150	002829	0li700leni acid	cyes	no	no				
664	95000	002893	lttoindthy trimetha methyl methacu copolyn	crylate- ylate	amæ)	no				
665	83120	002901		yes neglycol Ilmitate	no	no				

		1						r	
666	87280	002911	6s <b>Ø8</b> b <b>i</b> tan dioleate	i yes	no	no			
667	55190	0029204	4g@@@eio acid	cyes	no	no			
668	80240	0029894	4pð5ygly ricinole		no	no			
669	56610	003023	3g <b>6;4e8</b> ro monobe		no	no			
670	56800	003089	9 <b>g692e8</b> ro monola diacetat	urate	no	no		(32)	
671	74240	003157	D <b>pD/ds:p</b> ho acid, tris(2,4- di-tert- butylph		no	no			
672	76845	003183	lpoJy5sta of 1,4- butaned with caprola	liol	no	no		(29) (30)	The fraction with molecular weight below 1 000 Da [ <sup>F3</sup> shall] not exceed 0,5 % (w/w)
673	53670	003250	PedbyBend glycol bis[3,3- bis(3- tert- butyl-4- hydroxy	-	no butyrate]	yes	6		
674	46480	003264	7 <b>d6f7e9</b> /zy sorbitol	li <b>xtes</b> ne	no	no			
675	38800	003268	bis(3- (3,5- di-tert- butyl-4-		no propiony	yes l)hydraz	15 ide		
676	50400	003356	8 <b>d99n-9</b> octyltin	yes	no	no	<u></u>	(10)	

			bis(isoo maleate						
677	82560	003358		yes neglycol tate	no	no			
678	59200	003507	hexame bis(3- (3,5- di-tert- butyl-4-	yes thylene- /phenyl)	no propiona	yes te)	6		
679	39060	003595	bis(2- hydroxy di-tert-	yes 7-3,5- enyl)etha	no	yes	5		
680	94400	003644	3 <b>±68±</b> 2yle bis[3- (3-tert- butyl-4- hydroxy methylp propion	y-5- henyl)	lno	no	9		
681	18310	003665	3182-4 hexadec	no anol	yes	no			
682	53270	003720	5e9l9y5car	bycessyme	thnyolcellu	lase			
683	66200	003720	6n0etth2y1c	aynbeoxyn	nentohylcel	l <b>ul</b> ose			
684	68125	003724	4n <b>@6</b> htelin syenite	nyes	no	no			
685	85950	003729	659762 acid, magnes sodium- fluoride salt		no	no	0,15	SML expressed as fluoride. Only to be used in layers of multi- layer materials not coming into direct contact	

									with food.	
686	61390	003735	3h <b>5/2h6</b> xy	mesthylc	enhhulose	no				
687	13530	003810		no	yes	no	0,05			
	13614		bis(4- hydroxy bis(phth anhydri		propane					
688	92560	003861	3tətfakis di-tert- butyl- phenyl) bipheny diphosp	-4,4'- lylene	no	yes	18			
689	95280	004060	tris(4- tert- butyl-3- hydroxy dimethy	7-2,6- (lbenzyl)	no -1,3,5- 1,3H,5H)	yes	6			
690	92880	0041484	4tbiodiet bis(3- (3,5- di-tert- butyl-4- hydroxy phenyl) propion	7	no	yes	2,4			
691	13600	004746	bis(3- methyl-	no 4- (phenyl)2 ()	yes 2-	no	1,8			
692	52320	005204		yes phenyl)i	no ndole	yes	0,06			
693	88160	005414	)s <b>ðfbil</b> tar tripalmi		no	no				
694	21400	0054270	6 <b>n36th</b> aci acid, sulphop ester	5	yes	no	0,05			(1)
695	67520	0054849	9 <b>n3&amp;n6</b> m tris(isoc mercap		no )	no		(9)		

696	92205	005756	Ptel@plhth acid, diester with 2,2'- methyle methyl- tert-	nebis(4-	no	no			
			butylph	enol)					
697	67515	005758	3 <b>n3dnð</b> m tris(ethy mercapt		no )	no		(9)	
698	49595	005758	Belimethy bis(ethy mercapt		no )	no		(9)	
699	90720	005844	6s <b>te2</b> nØyl	byeenszoylı	methane	no			
700	31520	006116	acid, 2-tert- butyl-6- (3-tert- butyl-2- hydroxy	7-5- enzyl)-4	no	yes	6		
701	40160	006126	bis(2,2, tetrame piperidy	thyl-4- (1)hexam pethane,	no ethylene	no diamine-	2,4		
702	87920	0061752	2s <b>6f9</b> ftar tetrastea	-	no	no			
703	17170	006178	8f <b>á</b> tí7y4 acids, coco	no	yes	no			
704	77600	006178	8p85y0th ester of hydroge castor oil		cnb	no			
705	10599/9 10599/9	00046178 1	8a89 $d4$ , fatty, unsatura (C <sub>18</sub> ), dimers,		yes	no		(18)	(1)

706	17230	006170	non hydroge distilled and non- distilled		Vas	20			
/06	1/230	006179	acids, tall oil	no	yes	no			
707	46375	006179	0 <b>d5ðto2</b> ma earth	Cycernus	no	no			
708	77520	006179	l <b>pb2y6</b> thy ester of castor oil	y <b>kens</b> egly	cnb	no	42		
709	87520	006256	8s <b>øibû</b> tan monobe		no	no			
710	38700	006339				yes	18		
711	42000	006343				yes	30		
712	42960	006414	7 <b>e49t6r</b> oil, dehydra	yes ted	no	no			
[ <sup>F29</sup> 713	43480	006436	5 <b>eha</b> <del>f</del> ðoa <sub>0</sub> activate 0-44-0J		no	no		Only for use in PET at maximu 10 mg/ kg of polymen Same purity requirer as for Vegetab Carbon (E 153) set out by Commis	r. nents le

								Regulat (EU) No 231/201 <sup>d</sup> with exception of ash content which can be up to 10 % (w/w).	2
714	84400	006436	5rd 51rt9, hydroge ester with pentaery		no	no			
715	46880	006514	tert- butyl-4-	vbenzylp hyl	no hosphon	no ic	6		
716	60800	006544	hydroxy	ne-	no	no	30		
717	84210	006599	7 <b>FØ£i</b> HQ hydroge	yes mated	no	no			
718	84240	006599		yes nated,	no	no			
719	65920	006682		yes yloyloxy 'l-	no vethyl-	no			

			carboxy chloride sodium salt - octadec methacr ethyl methacr cyclohe methacr N- vinyl-2- pyrrolid copolym	yl ylate- ylate- xyl ylate- one,	mmoniu	m			
720	67360	006764	n- dodecyl tris(isoc	yes tin octyl oacetate	no )	no	(25)		
721	46800	006784.	tert- butyl-4-	benzoic	no	no			
722	17200	006830	8 <b>fatiy</b> 2 acids, soya	no	yes	no			
723	88880	0068412	2st29re3h, hydroly	yes sed	no	no			
724	24903	006842	5s¥ī⁄u⊉s, hydroly starch, hydroge	sed	yes	no		In complia with the purity criteria for maltitol syrup E 965(ii) as laid down in Commis Directiv 2008/60 EC <sup>e</sup>	ssion

F34

## Status: Point in time view as at 31/12/2020. Changes to legislation: There are currently no known outstanding effects for the Commission Regulation (EU) No 10/2011. (See end of Document for details)

726	83599	0068442rdacton yes	no	yes	(9)		
		products of oleic acid, 2- mercaptoethy ester, with dichlorodime sodium sulphide and trichlorometl	yl ethyltin,				
727	43360	0068442e8fltiloseyes regenerated	no	no			
728	75100	0068515p48h@lic yes 0028553a&240 diesters with primary, saturated C <sub>8</sub> -C <sub>10</sub> branched alcohols, more than 60 % C <sub>9</sub>	no	no	(26) (32)	Only to be used as: (a) (b)	(7) plasticiser in repeated use materials and articles; plasticiser in single- use materials and articles contacting non- fatty foods except for infant formulae and follow- on formulae as defined by Directive

								(c)	2006/141/ EC or processed cereal- based foods and baby foods for infants and young children as defined by Directive 2006/125/ EC; technical support agent in concentrations up to 0,1 % in the final product.
729	75105	006851	5ph9halic la4040 diesters with primary saturate C9-C11 alcohols more than 90 % C10	d	no	no	(26) (32)	Only to be used as: (a) (b)	(7) plasticiser in repeated use materials and articles; plasticiser in single- use materials and articles contacting

				(c)	by Directive 2006/125/ EC; technical support agent in concentrations up to 0,1 % in the final
					non- fatty foods except for infant formulae and follow- on formulae as defined by Directive 2006/141/ EC or processed cereal- based foods and baby foods for infants and young children as defined by

731	18220	006856		no	yes	no	0,05		kg of	rimethoxysilane ilsesquioxane (2)
			heptylar acid	ninound	ecanoic					
732	45450	006861	cresol-		no ne-	yes	5			
733	10599/9	<b>DA</b> 6878		no	yes	no		(18)		(1)
	10599/9		fatty, unsatura $(C_{18})$ , dimers, hydroged distilled and non- distilled	enated,						
734	46380	006885	5d5at0ma earth, soda ash flux- calcineo		no	no				
735	40120	006895	lb <b>5s(</b> p8oly	estesylene	glycol)h	y <b>ab</b> roxym	et foylpho	sphonat	e	
736	50960	006922	octyltin ethylene		no tate)	no		(10)		
737	77370	007014		y <b>læs</b> egly ydroxyst		no				
738	60320	007032	hydroxy bis(1,1-		no phenyl]b	yes enzotria	1,5 zole			
739	70000	007033	oxamid (3,5- di-tert- butyl-4-	phenyl)		no				

740	81200	007187	8 <b>pb9y86-</b> [(1,1,3,1	yes	no	yes	3		
			tetrame	thylbutyl	)amino]-	1,3,5-			
			triazine diyl]-	-2,4-					
			[(2,2,6,0	5-					
			tetrame	thyl-4-					
			piperidy		ulan a [()	266			
			tetrame	exameth thvl-4-	ylene[(2	,2,0,0-			
			piperidy						
			imino]						
741	24070	007313		yes	yes	no			
	83610		acids and						
			rosin						
			acids						
742	92700	007830	124 <b>3,4</b> 6,4-		no	yes	5		
			tetrame (2,3-	thyl-20-					
			epoxyp	opyl)-7-					
			oxa-3,2	0-					
			diazadis [5.1.11.						
			heneico						
			one,						
			polyme						
743	38950	007907		yes nzyliden	no e)sorbito	no I			
[ <sup>F33</sup> 744	18888	080181		no	yes	no		(35)	The
			hydroxy acid-3-	butanoi	t I				substance is used
				pentano	ic				as
			acid,	Î					product
			copolyr	ner					obtained by
									bacterial
									fermentation.
									In
									compliance with
									the
									specifications
									mentioned in the
									Table
									4 of
									Annex I. ]
									1. J

753	62800	008154 0092704	1-12-0	es	no	no				
[ <sup>F3</sup> 752	39890	008782 006915 4 005468		<b>b</b> enzy	lindene)so	onkoitjol				
751	81515	008718	9p25y(zinge glycerolate		no	no				
750	66350	008520	methylene di-tert- butylpheny lithium phosphate	bis(4, <b>6</b> yl)	no 5-	no	5			
749	66360	008520	9292'-2 ye methylene bis(4,6- di-tert- butylpheny sodium phosphate	yl)	no	yes	5			
748	12765	0084434	4N-228 no aminoethy $\beta$ - alanine, sodium salt		yes	no	0,05			
747	47600	008403	0 <b>d6-h-</b> 5 ye dodecyltin bis(isoocty mercaptoa	ı Vl	no )	yes		(25)		
746	38810		3600(21,6- ye di-tert- butyl-4- methylphe diphosphit	enyl)pe	no entaeryth	yes ritol	5		SML expresse as sum of phosphi and phospha	te
745	68145	008041	0233' <del>5</del> 9'- ye nitrilo(trie tris(3,3',5, tetra- tert- butyl-1,1'- bi- phenyl-2,2 diyl)phosp	thyl 5'- 2'-	no	yes	5		SML expresse as sum of phosphi and phospha	te

754	56020	009988	0 <b>g64e5</b> rol		no	no				
755	21765	010624	dibehen 643 <b>#</b> '-7	nate no	yes	no	0,05			(1)
				enebis(3- 2,6-	y 05					(1)
756	40020	0110553		yes Ithiomet henol	no hyl)-6-	yes		(24)		
757	95725	011063	8veinticu reaction product with citric acid, lithium salt	1	no	no				
758	38940	011067:			no nethyl)-6	yes -		(24)		
759	54300	011833′	ethylide di-tert- butylphe	yes enebis(4, enyl) hosphoni	6-	yes	6			
760	83595	011934:	5r0defion product of di- tert- butylpho with bipheny obtained by condens of 2,4- di-tert- butylpho with Friedel Craft reaction product of phospho trichlori and bipheny	osphonit d sation enol orous ide		no	18		Compos —	sition: 4,4'- biphenylene- bis[0,0- bis(2,4- di- tert- butylphenyl)phosphonite] (CAS No 0038613-77-3) (36-46 % w/ w (*)), 4,3'- biphenylene- bis[0,0- bis(2,4- di- tert- butylphenyl)phosphonite] (CAS No

				0118421-00-4) (17-23 % w/ W (*)),
				 (*)), 3,3'- biphenylene- bis[0,0- bis(2,4- di-
				tert- butylphenyl)phosphonite] (CAS No
				0118421-01-5) (1-5 % W/ W (*)),
				 4- biphenylene-0,0- bis(2,4- di-
				tert- butylphenyl)phosphonite (CAS No 0091362-37-7)
				(11-19 % w/ w (*)),
				 tris(2,4- di- tert- butylphenyl)phosphite
				(CAS No 0031570-04-4) (9-18 % W/
				 w (*)), 4,4'- biphenylene-0,0-
				bis(2,4- di- tert- butylphenyl)phosphonate-0 bis(2,4-
				di- tert- butylphenyl)phosphonite

								(*) Other specifica	(CAS No 0112949-97-0) ( $<$ 5 % w/ w (*)) Quantity of substance used/ quantity of formulation tions: Phosphor content of min. 5,4 % to max. 5,9 %, Acid value of max. 10 mg KOH per gram, Melt range of 85– 110 °C,
761	92930	0120218	methoxy	pyridine	1-2,6-	no	6		
762	31530	0123968	Ba25yIc acid, 2,4-di- tert- pentyl-6 (1- (3,5- di-tert-	yes	no	yes	5		

			pentyl-2 hydroxy ester	2- 7phenyl)	ethyl)phe	nyl			
763	39925	012922	bis(met	yes hoxymet lhexane	no hyl)-2,5-	yes	0,05		
764	13317	013245	bis[4- (ethoxy	no carbonyl lenetetra	yes )phenyl] carboxyo	no -1,4,5,8- diimide	0,05	Purity > 98,1 % (w/w). Only to be used as co- monom (max 4 %) for polyeste (PET, PBT).	
765	49485	013470	dimethy (1-		no yl)pheno	yes I	1		
766	38879	013586	1b5s(-32,4- dimethy		no dene)sor	no bitol			
767	38510	0136504	bis(3-	r 2,6,6- thyl-4- namine	no ylenedia	no mine,	5		
768	34850	014392:	5a92in2es, bis(hyd tallow alkyl) oxidised	rogenate	no d	no		Not to be used for articles in contact with fatty foods	(1)

								for which [ <sup>F3</sup> simul D1 and/ or D2] is laid down. Only to be used in: (a) (b)	polyolefins at 0,1 % (w/ w) concentration and in PET at 0,25 % (w/ w) concentration.
769	74010	0145650	Dpt0s\$ho acid, bis(2,4- di-tert- butyl-6- methylp ethyl ester		no	yes	5	SML expresse as sum of phosphi and phospha	te
770	51700	014731:	525()4,26- dipheny triazin-2 yl)-5- (hexyloy		no	no	0,05		
771	34650	015184	latorifinit hydroxy [2,2'- methyler (4,6- di-tert- butylphe phospha	bis nebis enyl)	no	no	5		
772	47500	0153250	0 <b>N5,2N3</b> dicycloh	yes nexyl-2,6	no -	no	5		

			naphtha dicarbo							
773	38840	015486	2 <b>b4s(28</b> 4- dicumy diphosp	lphenyl)j	no pentaery	yes thritol-	5		phospha and its hydroly product (2,4-	ce d lphenyl)pentaerythritol- ate sis
774	95270	016171	tris(tert	nenyl-2- 3- diol	no	yes	2		SML express as sum of phosphi and the hydroly product = TTBP	ite, ate sis
775	45705	016641		yes xanedica nyl	no irboxylic	no		(32)		
776	76723	016788	3- aminop termina polyme with	ted, r hexylmet		no t'-			The fraction with molecu weight below 1 000 Da [ <sup>F3</sup> shall] not exceed 1,5 % (w/w)	lar

777	31542	017425	4a2Bylic acid, methyl ester, telomer with 1- dodecar C <sub>16</sub> - C <sub>18</sub> alkyl esters		no	no		0,5 % in final product	(1)
778	71670	017867	lp58tder tetrakis (2- cyano-3 dipheny		no	yes	0,05		
[ <sup>F3</sup> 779	39815	018212		yes hoxymet	no hyl)fluoi	yes ene	0,05		[ <sup>F28</sup> (2)]]
780	81220	019226	[[6- [N- (2,2,6,6 tetrame piperidi n- butylam triazine diyl] [(2,2,6,0 tetrame piperidi hexanec tetrame piperidi $\alpha$ - [N,N,N ',N'- tetrabut N"- (2,2,6,6 tetrame piperidi N"-[6- (2,2,6,6 tetrame	thyl-4- nyl)- ino]-1,3 -2,4- 6- thyl-4- nyl)imin iyl[(2,2, thyl-4- nyl)imin yl- - thyl-4- nyl)- - thyl-4- nyl)- -	o]-1,6- 6,6- o]]-	no	5		

			ω- N,N,N ',N'- tetrabut triazine- diamine							
781	95265	0227099	946 <b>0</b> ,57 tris(4- benzoyl benzene		no	no	0,05			
782	76725	0661470		ropyl ted,	yl-3,5,5-	no			The fraction with molecul weight below 1 000 Da [ <sup>F3</sup> shall] not exceed 1 % (w/w)	
783	55910	073615	Dgbgeðrið castor- oil mono-, hydroge acetates	enated,	no	no		(32)		
[ <sup>F29</sup> 784	95420	0745070	tris (2,2- di-	yes propanan	no nido)	no	5]			
785	24910	000010	DterepOnth acid	atlic	yes	no		(28)		
786	14627	0000117	7 <u>3</u> 21-5 chlorop anhydri	no hthalic de	yes	no	0,05		SML expresse as 3- chloropt acid	
787	14628	0000118	8445-6 chlorop anhydri		yes	no	0,05		SML expresse as 4- chlorop acid	

788	21498	000253		no ryloxy)p	yes propyl]tri	no methoxy	0,05 vsilane	Only (1) to be (11) used as a surface treatment agent of inorganic fillers
789	60027		hydroge homopo and/or copolyn made of 1- hexene and/ or 1- decene and/ or 1- decene and/ or 1- decene and/ or 1- tetradec (Mw: 440– 12 000)	ners	no	no		Average (2) molecular weight not less than 440 Da. Viscosity at 100 °C not less than 3,8  cSt $(3,8 \times 10^{-6} \text{ m}^2/\text{s}).$
790	80480	009075 008245	hexa- methyle [(2,2,6,0 tetrame	lino-1,3, -2,4- 5- thyl-4- /l)imino) me- 5-	)]	no	5	Average (16)molecularweightnotlessthan2 400Da.Residualcontentofmorpholine $\leq$ 30 mg/kg, ofN,N'-bis(2,2,6,6-tetramethylpiperidin-4

							yl)hexahe-1,6- diamine < 15 000 mg/ kg, and of 2,4- dichloro-6- morpholino-1,3,5- triazine $\leq$ 20 mg/ kg.
791	92470	tetrame yl)amin yl)-4,7-	2,2,6,6- thylpiper o)triazin cane-1,1	-2-	no	0,05	
792	92475	cyclic ester with [3-(3- tert- butyl-4- hydroxy	(tert- ,2'- xybipher		yes /phospho	5 onous	SML expressed as the sum of phosphite and phosphate form of the substance and the hydrolysis products
793	94000	0000102#71##6an	oyænine	no	no	0,05	SML expressed as the sum of triethanolamine and the hydrochloride adduct expressed

								as triethanolamine
[ <sup>F31</sup> 794	18117	000007	9g1∳eðlic acid	no	yes	no		Only to be used for manufacture of polyglycolic acid (PGA) for (i) indirect food contact behind polyesters such as polyethylene terephthalate (PET) or polylactic acid (PLA); and (ii) direct food contact of a blend of PGA up to 3 % w/ w in PET or PLA. ]
795	40155	012417	bis(2,2, tetrament piperidy N,N'-	thyl-4- rl)-	no	no iamine	0,05	(2) (12)
796	72141	001860	0 <b>2599-</b> 4 (1,4-	yes ne)bis[4	no	yes	0,05	SML including the sum

			benzoxa one]	zin-4-					of its hydrolys products	
[ <sup>F31</sup> 797	76807	007301	Sp205y5ste of adipic acid with 1,3- butaned 1,2- propane and 2- ethyl-1- hexanol	iol, diol	no	yes		(31) (32)]		
798	92200	0006422	2t& phth acid, bis(2- ethylhe:	a <b>jlės</b> xyl)ester	no	no	60	(32)		
[ <sup>F29</sup> 799	77708		(EO = 1-50) ethers of linear and branche primary (C <sub>8</sub> - C <sub>22</sub> ) alcohols	5		no	1,8		In complia with the maximu ethylene oxide content as laid down in the purity criteria for food additive in Commis Regulati (EU) No 231/201 ]	s sion on
800	94425	000086	7 <b>trfiðtl0</b> yl phospho	yes moaceta	no te	no			Only for use in PET	
801	30607		acids, C <sub>2</sub> - C <sub>24</sub> , aliphatic linear,	yes c,	no	no				

802	33105	014634	from natural oils and fats, lithium salt $C_{12}$ - $C_{14}$ seconda $\beta$ -(2- hydroxy	ry, vethoxy),	no	no	5		(12)
803	33535	015226	alkeness C <sub>24</sub> ) copolyn with maleic anhydri reaction product with 4- amino-2	yes (C <sub>20</sub> - ner de,	no	no		Not to be used for articles in contact with fatty foods for which [ <sup>F3</sup> simul D1 and/ or D2] is laid down. Not to be used in contact with alcoholi foods.	
804	80510	101012	diyl)- block- poly(x- oleyl-7- hydroxy	,1- - pane-1,3-		no		Only to be used as polymer product aid in polyethy (PE), polypro	ion ylene

			diyl), process mixture with x = 1 and/ or 5, neutrali with dodecyl acid		sulfonic			(PP) and polystyre (PS)	ene
805	93450		and	ner chlorosila	no ane ylenepho	no		The content of the surface treatmen copolym of the coated titanium dioxide is less than 1 % w/ w	
806	14876	0001070		no xanedica	yes rboxylic	no	5	Only to be used for manufac of polyester	
[ <sup>F30</sup> 807	93485		titanium nitride, nanopar		no	no		No migration of titanium nitride nanopart Only to be used in polyethy terephtha (PET) up to 20 mg/ kg. In the PET, the	icles. lene

									agglom have a diamete of 100-500 consisti of primary titanium nitride nanopan primary particles have a diamete of approxi 20 nm. ]	r ) nm ng ticles; s
808	38550	088207		yes enzylide	no ne)propy	no lsorbitol	5		SML includir the sum of its hydroly product	sis
809	49080	085228	(2,6- diisopro [4- (1,1,3,3) tetramet	hylbutyl	no yl)-6- )phenox; nolin-1,3	yes y]-1H- (2H)-	0,05		Only for use in PET	(6) (14) (15)
810	68119		neopent glycol, diesters and monoes with benzoic acid and 2- ethylhez acid	ters	no	no	5	(32)	Not to be used for articles in contact with fatty foods for which [ <sup>F3</sup> simu D1 and/ or D2]	ant

									is laid down.	
811	80077	006844	lpb <b>ly8</b> th waxes, oxidised		no	no	60			
[ <sup>F31</sup> 812	80350	012457	8pb <b>1</b> y712 hydroxy acid)- polyeth copolyn	vstearic yleneimi	no	no			Only to be used in plastics up to 0,1 % w/w. Prepare by the reaction of poly(12 hydroxy acid) with polyeth	-
813	91530		sulphos acid alkyl (C <sub>4</sub> - C <sub>20</sub> ) or cyclohe diesters salts	xyl	no	no	5			
814	91815		sulphos acid monoall $(C_{10}$ - $C_{16})$ polyeth esters, salts		no	no	2			
815	94985		trimethy mixed triesters and diesters with benzoic acid and 2- ethylhes acid		1 <b>mæ</b> )	no	5	(32)	Not to be used for articles in contact with fatty foods for	

							which [ <sup>F3</sup> simulant D1 and/ or D2] is laid down
816	45704	 cis-1,2- cyclohe acid, salts	yes xanedica	no irboxylic	no	5	
817	38507	cis- endo- bicyclo dicarbo: acid, salts	yes [2.2.1]he xylic	no ptane-2,3	no 3-	5	Not to be used with polyethylene in contact with acidic foods. Purity $\geq$ 96 %.
818	21530	 methall acid, salts	ynhaulpho	nyees	no	5	
819	68110	neodeca acid, salts	nyæis:	no	no	0,05	Not to be used in polymers contacting fatty foods. Not to be used for articles in contact with fatty foods for which [ <sup>F3</sup> simulant D1 and/

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820	76420		pimelic acid, salts	yes	no	no		or D2] is laid down. SML expresse as neodeca acid.	
821	90810		stearoyl lactylic acid, salts	-ŷes	no	no			
[ <sup>F35</sup> 822	71938		Perchlo acid, salts	riyæs	no	no	0,002		(4)]
823	24889		5- Sulphoi acid, salts	no sophthal	yes ic	no	5		
854	71943	032923	8p24fkion acetic acid, α- substitu with the copolyr of perfluon propyle glycol and perfluon ethylend glycol, termina with chloroh groups	ted ner ro-1,2- ne ro-1,1-	no opropylo	no		Only to be used in concenti up to 0,5 % w/w in the polymer of fluoropo that are processe at tempera at or above 340 °C and are intended for use in repeated use articles	isation olymers ed tures

[ <sup>F36</sup> 855	40560		(butadie styrene, methyl methacr copolyn cross- linked with 1,3- butaned dimetha	rylate) ner liol	no	no	Only to be used in rigid poly(vir chloride (PVC) at a maximu level of 12 % at room tempera or below.	e) 1m
[ <sup>F37</sup> 856	40563	25101-2	2 <b>8b4</b> tadie styrene, methyl methacr butyl acrylate copolyn cross- linked with divinylk or 1,3- butaned dimetha	ylate, y) ner penzene liol	no	no	Only to be used in: 	rigid poly(vinyl chloride) (PVC) at a maximum level of 12 % at room temperature or below; or at up to 40 % w/ w in blends of styrene acrylonitrile copolymer (SAN)/ poly(methyl methacrylate) (PMMA)

957						repeat- use articles at room temperature or below, and when either in contact only with aqueous, acidic and/ or low alcoholic (< 20 %) foodstuffs for less than 1 day, or when in contact only with aqueous, acidic and/ or low alcoholic (< 20 %) foodstuffs for less than 1 day, or when in contact only with alcoholic (< 10 %) foodstuffs for low alcoholic low in contact only with alcoholic c in contact only with dry foodstuffs for low contact only with dry foodstuffs for low contact only with dry foodstuffs for low contact only contact contact only contact only contact only contact conly contact only contact contact only contact co
857	66765	0037953(fthetfhyl yes methacrylate, butyl acrylate, styrene, glycidyl methacrylate) copolymer	no	no	Only to be used in rigid poly(vin chloride (PVC) at a maximu level	

			of 2 % at room temperature or below. ]
[ <sup>F26</sup> [ <sup>X1</sup> 85 <b>§</b> 8565	dimethylethyl]- tetraoxaspiro[5,	5]undecane	expressed as the sum of the substance and its oxidation product 3-[(3- (3-tert- butyl-4- hydroxy-5- methylphenyl)prop-2- enoyloxy)-1,1- dimethylethyl]-9- [(3-(3- tert- butyl-4- hydroxy-5- methylphenyl)propionyloxy)-1,1- dimethylethyl]-2,4,8,10- tetraoxaspiro[5,5]- undecane in equilibrium with its para quinone methid tautomer.
[ <sup>F23</sup> 859	(butadie <b>ŋœ</b> ;s ethyl acrylate, methyl methacrylate, styrene) copolymer crosslinked with divinylbenzene, in nanoform	no no	Only to be used as particles in non- plasticised PVC up to 10 % w/w in contact

					with
					all
					food
					types
					at
					room
					temperature
					or
					below
					including
					long-
					term
					storage.
					When
					used
					together
					with
					the
					substance
					with
					FCM
					No
					998
					and/
					or the
					substance with
					FCM
					No
					1043,
					the
					restriction
					of
					10 %
					w/w
					applies
					to the
					sum of
					those
					substances.
					The
					diameter
					of
					particles
					shall
					be >
					20 nm,
					and for at
					for at least
					95 %
					by
					number
I	I	I			

							it shall be > 40 nm. ]
860	71980	005179	8pæðffbion (poly(n- propoxy acid]	जुæि ())propar	no noic	no	Only to be used in the polymerisation of fluoropolymers that are processed at temperatures at or above 265 °C and are intended for use in repeated use articles
861	71990	001325	2ptBfbioi (n- propoxy acid]	ojæ ≀)propan	no oic	no	Only to be used in the polymerisation of fluoropolymers that are processed at temperatures at or above 265 °C and are intended for use in repeated use articles

[ <sup>F31</sup> 862	15180	001808	diacetox		yes	no	0,05	SML (17) includin (19)] the hydrolysis product 3,4- dihydroxy-1- butene Only to be used as a co- monomer for ethylvinylalcohol (EVOH) and polyvinylalcohol (PVOH) copolymers.
[ <sup>F36</sup> 863	15260	000064	642503 decaned	no liamine	yes	no	0,05	Only to be used as a co- monomer for manufacturing polyamide articles for repeated use in contact with aqueous, acidic and dairy foodstuffs at room temperature or for short term contact up to 150 °C. ]

864	46330	00000562	2046-4	yes	no	no	5	Only	
			diamino		ine			to be used in rigid poly(vir chloride (PVC) in contact with non- acidic and non- alcoholi aqueous food	) c
[ <sup>F30</sup> 865	40619		acrylate methyl methacr butyl methacr copolyn	ylate, ylate)	no	no		Only to be used in: (a) (b)	rigid poly(viny) chloride) (PVC) at a maximum level of 1 % w/ w; polylactic acid (PLA) at a maximum level of 5 % w/ w. ]
866	40620	1	(butyl acrylate methyl methacr copolyn	ylate)	no	no		Only to be used in rigid	

			cross- linked with allyl methacr	ylate			poly(vir chloride (PVC) at a maximu level of 7 %	)
867	40815	004047	l(bat21 methacr ethyl acrylate methyl methacr copolyn	, ylate)	no	no	Only to be used in rigid poly(vin chloride (PVC) at a maximu level of 2 %	)
[ <sup>F30</sup> 868	53245	000901	0(-883-92 acrylate methyl methacr copolyn	ylate)	no	no	Only to be used in: (a)	rigid poly(vinyl chloride) (PVC) at a maximum level of 2 % w/ w/ w;
							(b) (c)	w, polylactic acid (PLA) at a maximum level of 5 % w/ w; polyethylene terephthalate (PET) at a maximum

									level of 5 % w/ w. ]
869	66763	002713	6(būts) acrylate methyl methacı styrene) copolyr	ylate,	no	no		Only to be used in rigid poly(vin chloride (PVC) at a maximu level of 3 %	:)
870	95500	016053	',N"- tris(2-	-	no yl)-1,2,3·	no	5		
[ <sup>F4</sup> 871		028791	6d8decar acid, 12- amino-, polyme: with ethene, 2,5- furandia α- hydro- ω- hydro- (oxy-1,, ethaned and 1- propene	r one, vpoly 2- iyl)	no	no		Only to be used in polyole: at levels of up to 20 weight %. These polyole: shall only be used in contact with foods for which Table 2 of Annex III	

								assigns food simulan E, at ambient tempera or below, and when migratic of the total oligome fraction of less than 1 000 Da does not exceed 50 µg/ kg food.	ture on
[ <sup>F38</sup> 872		000660	phenyl- bis(4-		yes phthalim	no idine	0,05	To be used only as a co- monom in polycar copolyr	bonate
[ <sup>F36</sup> 873	93460		titanium dioxide reacted with octyltrie	iyes ethoxysil	no ane	no		Reactio product of titanium dioxide with up to 2 % w/w surface treatmen substan octyltric process at high tempera ]	nt ce ethoxysilane, ed

[ <sup>F26</sup> 874	16265	015606	dimethy (4'- hydroxy methoxy ω-3- dimethy (4'- hydroxy methoxy	y-3'- yphenyl) /l-3- y-3'-	yes propylsil propylsil		0,05	(33)	Only to be used as comono in siloxand modifie polycar The oligome mixture shall be characte by the formula C $_{24}$ H $_{38}$ Si $_2$ O $_5$ (SiOC $_2$ H $_6$ )n (50 > n $\ge$ 26). ]	d oonate. eric erised
875	80345	005812	8p <b>21</b> y612 hydroxy acid) stearate	vstearic	no	yes	5			
878	31335		acids, fatty (C <sub>8</sub> - C <sub>22</sub> ) from animal or vegetab fats and oils, esters with branche alcohols aliphatie monohy saturate primary	d \$, c, /dric, d,	no	no				

			(C <sub>3</sub> - C <sub>22</sub> )						
879	31336		acids, fatty ( $C_8$ - $C_{22}$ ) from animal or vegetab fats and oils, esters with alcohols linear, aliphatic monohy saturate primary ( $C_1$ - $C_{22}$ )	\$, c, /dric, d,	no	no			
[ <sup>F29</sup> 880	31348		acids, fatty (C <sub>8</sub> - C <sub>22</sub> ), esters with pentaer	yes ythritol'	no	no			
881	25187	000301	0295,464- tetrame diol	no thylcyclo	yes butane-	no 1,3-	5	Only for: (a) (b)	repeated use articles for long term storage at room temperature or below and hotfill; single use materials and articles

as а comonomer at а maximum use level of 35 mole % of the diol component of polyesters, and if such materials and articles are for long term storage at room temperature or below of food types which have an alcohol content of up to 10 % and for which Table 2 of

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									Annex III does not assign simulant D2. Hot fill conditions are allowed for such single use materials and articles. ]
882	25872	000241		no /lphenol	yes	no	0,05		
883	22074	000445	methyl- pentane	diol	yes	no	0,05	Only to be used in material in contact with food at a surface to mass ratio up to 0,5 dm <sup>2</sup> / kg	S
884	34240	009108	2all&yt(C C <sub>21</sub> )sulf acid, esters with phenol	dyes bhonic	no	no	0,05	Not to be used for articles in contact with fatty foods for	

								which [ <sup>F3</sup> simul D1 and/ or D2] is laid down.	ant
885	45676	026324	4e§4Ht oligome of (butyler terephth	ne	no	no		Only to be used in poly(eth terephth (PET), poly(bu terephth (PBT), polycarl (PC), polycarl (PC), polystyn (PS) and rigid poly(vin chloride (PVC) plastics in concent up to 1 % w/ w, in contact with aqueous acidic and alcoholi foods, for long term storage at room tempera	alate) tylene valate) conate rene nyl c rations
[ <sup>F36</sup> 894	93360	001654	5 <b>t5i6đ</b> ipr acid, ditetrad ester		no	no	14)		

895	47060	0171090 <b>39(3,</b> ).	yes	no	no	0,05	Only	
		di-tert-					to be	
		butyl-4	1				used	
		hydrox	yphenyl	)propano	01C		in	
		acid,					polyole	fins
		esters					in	
		with					contact	
		C13-					with	
		C15					foods	
		branche	d				other	
		and	u				than	
		linear					fatty/	
		alcohol						
		alconor	\$				high-	
							alcohol	10
							and	
							dairy	
							product	8.
896	71958	0958445 <b>344</b> -8	NOS	no	no		Only	
390	/1930		yes	no	no			
		perfluo	0-3-				to be	
		[(3-					used	
		methox					in the	
		propox	y)propa	noic			polyme	risation
		acid],					of	
		ammon	ium				fluorop	olymers
		salt					when:	
								processed
								at
								temperature
								higher
								than
								280 °C
								for
								at
								least
								10
								minutes,
								processed
								at
								temperature
								higher
								than
								190 °C
								up
								to
								30 %
								w/
								W
								for
								use
								in
								blends
			1					with

						polyoxymethylene polymers and intended for repeated use articles.
[ <sup>F26</sup> 902		1421–9 yes benzisothiazol-3 one 1,1- dioxide, sodium salt	no (2H)-	no	The substanc shall comply with the specific purity criteria as set out in Commis Regulati (EU) No 231/201	sion on
[ <sup>F23</sup> 903	1	244- yes perfluoro- [(5,8,11,14- tetramethyl)- tetraethylenegly ethyl propyl ether]	no	no	Only to be used as a polymer producti aid in the polymer of fluoropo intended for: (a)	on isation lymers

								(b)	temperatures at or above 360 °C for at least 10 minutes or at higher temperatures for equivalent shorter times; repeated use materials and articles when processed (non- sintered) at temperatures from 300 °C and up to 360 °C for at least 10 minutes. ]
923	39150	000012	bis(2-	yes /ethyl)dc	no decanam	no hide	5	The residual amount of diethand in plastics as an impurity and decomp	olamine y

								product of the substance, [ <sup>F3</sup> shall] not result in a migration of diethanolamine higher than 0,3 mg/ kg food.
924	94987		trimethy mixed triesters and diesters with n- octanoid and n- decanoi acids	e	1 <b>mæ</b> )	no	0,05	Only for use in PET in contact with all types of foods other than fatty, high- alcoholic and dairy products.
926	71955	0908020	Dp52fWor ethyloxy ethoxy) acid], ammon salt	y- acetic	no	no		Only to be used in the polymerisation of fluoropolymers that are processed at temperatures higher than 300 °C for at least

						10 minutes.
[ <sup>F23</sup> 969		24937-7	<sup>7</sup> 8tBylend vinyl acetate copolyn wax	no	no	Only to be used as a polymeric additive up to 2 % w/ w in polyolefins. The migration of low molecular weight oligomeric fraction below 1 000 Da shall not exceed 5 mg/ kg food. ]
971	25885	000245	9 <b>triifhd</b> thy trimellit	yes	no	Only (17) to be used as a co- monomer up to 0,35 % w/w to produce modified polyesters intended to be used in contact with aqueous and dry foodstuffs containing no free

972	45197	001215	Beð <del>þræ</del> r hydroxi phospha	de	no	no		fat at the surface	
973	22931	0019430			e <b>the</b> slene	no		of	risation olymers,
[ <sup>F35</sup> 974	74050	939402-	and 4- (1,1-	lpropyl) Ipropyl)		yes	10	SML express as the sum of the phosphi and phosphi forms of the substan 4-tert- amylph and 2,4-di- tert- amylph The migration of 2,4- di-tert- amylph shall not exceed 1 mg/ kg food. ]]	ite ate ce, enol enol. on

[ <sup>F26</sup> 979	79987		(polyethy terephthal hydroxyla polybutad pyromelli anhydride copolyme	late, ated liene, tic e)	no	no		Only to be used in polyethylene terephthalate (PET) at a maximum level of 5 % w/w. ]
[ <sup>F38</sup> 988		3634-83	3-11,3- n bis(isocya		yes ethyl)ber	no nzene	(34)	SML(T) applies to the migration of its hydrolysis product, 1,3- benzenedimethanamine To be used only as co- monomer in the manufacture of a middle layer coating on a poly(ethylene terephthalate) polymer film in a multilayer film ]
[ <sup>F23</sup> 998			(butadieny ethyl acrylate, methyl methacryl styrene) copolyme not cross- linked,	late,	no	no		Only to be used as particles in non- plasticised PVC up to 10 %

in		w/w in
nanoform		contact
		with
		all
		food
		types
		at
		room
		temperature
		or
		below
		including
		long-
		term
		storage.
		When
		used
		together
		with
		the
		substance
		with
		FCM
		No
		859
		and/
		or the
		substance
		with
		FCM
		No
		1043,
		the
		restriction
		of
		10 %
		w/w
		applies
		to the
		sum of
		those
		substances.
		The
		diameter
		of
		particles
		shall
		be >
		20  nm,
		and
		for at
		least
		95 %

							by number it shall be > 40 nm.	
[ <sup>F39</sup> 1007	976-56-	Tdiethyl bis(1,1- dimethy hydroxy	(lethyl)-4	yes  methyl]p	no hosphon	ate	Only to be used up to 0,2 % w/w based on the final polyme weight in the polyme process to manufa poly(eth terephth (PET).	risation cture tylene
1016		(methac acid, ethyl acrylate n- butyl acrylate methyl methacr and butadien copolym in nanofor	ylate ne) ner	no	no		Only to be used up to: (a) (b) The final materia shall be used at room tempera or	

						below.
1017	25618-5 <b>‡</b>	oolygly	cyeol	no	no	To be processed under conditions preventing the decomposition of the substance and up to a maximum temperature of 275 °C.
[ <sup>F39</sup> 1030	c r b d C	elay nodifie by limethy	ldialkyl( monium	C16-	no	Only to be used up to 12 % (w/ w) in polyolefins in contact with dry foods to which simulant E is assigned in table 2 of Annex III at room temperature or below. The sum of the specific migration of 1- chlorohexadecane and 1-

						chlorood shall not exceed 0,05 mg kg food. Can contain platelets in the nanofor that are only in one dimensi thinner than 100 nm. Such platelets shall be oriented parallel to the polymen surface and shall be fully embedd in the polymen ]	s m on s l ed
[ <sup>F4</sup> 1031	3238-40	)f2ran-2, dicarbo acid	yes	no	5	Only to be used as a monome in the production of polyethy furanoat The migratic of the oligome fraction	ion ylene te. on eric

							of less than 1 000 Da shall not exceed 50 µg/ kg food (expressed as furan-2,5- dicarboxylic acid).
1034	3710-30	)-B <sub>7</sub> - octadier	no ne	yes	no	0,05	Only to be used as a crosslinking co- monomer in the manufacture of polyolefins for contact with any type of foods for long term storage at room temperature, including when packaged under hot-fill conditions. ]
1043		(butadie ethyl acrylate methyl methacr styrene)	, ylate,	no	no		Only to be used as particles in

copolymer not	
crosslinked pla	sticised
with PV	'C
1,3- up	
butanediol	%
	w in
in control con	ntact
nanoform	
all	
for	
	Jes
at	
	nperature
or	
	low
	luding
ter	
	rage.
	hen
use	
tog	gether
wit	th
the	
sut	ostance
with the second se	th
FC	СM
No	)
and	
	the
	ostance
wit	
FC	
No	
the	, ,
	triction
of	
	%
	plies
	the
	m of
	ostances.
	imeter
of	
	rticles
sha	
be	>

			20 nm, and for at least 95 % by number it shall be > 40 nm. ]
[ <sup>F4</sup> 1045	119093 <b>p27flhoroyExcetic</b> no acid, 2-[(5- methoxy-1,3- dioxolan-4- y1)oxy]}, ammonium salt	no	Only to be used as a polymer production aid during the manufacture of fluoropolymers under high temperature conditions of at least 370 °C.
1046	zinc yes no oxide, nanoparticles, coated with [3- (methacryloxy)propyl] trimethoxysilane (FCM No 788)	no	Only to be used in unplasticised polymers. The restrictions and specifications specified for FCM substance No 788 shall be respected.

1048		thyleney lycol ipalmitat		no	no		(2)	Only to be used when produce from a fatty acid precurso that is obtained from edible fats or oils.	or
1050	o n	inc y xide, anopartic ncoated	es cles,	no	no			Only to be used in unplasti polymer	cised <sup>-</sup> s.
1051	te p	¥2N'- y is(2,2,6,6 etramethy iperidiny sophthala	yl-4- /l)	no	no	5			
1052	d te	etraoxasp liethanol, etramethy PG	oiro[5,5 β3,β3,	yes Jundeca β9,β9-	no ne-3,9-	5		Only to be used as a monomin in the product of polyeste The migration of oligome of less than 1 000 Da shall not exceed 50 µg/ kg food (express	ion ers. on ers

							as SPG).	
1053		fatty acids, C16– 18 saturate esters with dipentae	yes d, erythritol	no	no		Only to be used when produce from a fatty acid precurse that is obtained from edible fats or oils ]	Dr
[ <sup>F39</sup> 1055	7695-91 58-95-7	€ tocophe acetate	yes rol	no	no		Only to be used as antioxic in polyole	
[ <sup>F40</sup> 1059	147398-	co- (R)-3-	)nð- /butyrate /hexanoa		no	(35)	Only to be used either alone or blended with other polymer in contact with all foods under contact conditic of up to 6 month and/or 6 month and more, at room	rs ns

							temperal or below, includin hot fill or a short heating up phase. The migratic of all oligome with a molecul weight below 1 000 Da shall not exceed 5,0 mg/ kg food.	g on rs
1060		ground sunflow seed hulls	yes er	no	no		Only to be used at room tempera or below in contact with foods for which Table 2 of Annex I assigns food simulan The seed hulls shall be obtained from	II t E.

			sunflower seeds that are fit for human consumption. The processing temperature of the plastic containing the additive shall not exceed 240 °C.
[ <sup>F41</sup> 1061	80512-4 <b>2</b> , <b>3</b> ,4'- no yes trifluorobenzophenone	no	Only to be used as a co- monomer in the manufacture of polyether ether ketone plastics up to 0,3 % w/ w of the final material. ]
1062	mixture no yes composed of 97 % tetraethyl orthosilicate (TEOS) with CAS No 78-10-4 and 3 % hexamethyldisilazane	no	Only to be used for the production of recycled PET and at up to 0,12 % (w/w). ]

#### Status: Point in time view as at 31/12/2020.

# **Changes to legislation:** There are currently no known outstanding effects for the Commission Regulation (EU) No 10/2011. (See end of Document for details)

	(HMDS) with CAS No 999-97-	3			
[ <sup>F41</sup> 1063	1547-26-28,3,3,4,4,66,9, heptafluoro pentene	5- -1- , yes	no		Only to be used together with tetrafluoroethylene and/ or ethylene co- monomers to manufacture fluorocopolymers for application as polymer processing aid at up to 0,2 % w/ w of the food contact material, and when the low- molecular mass fraction below 1 500 Da in the fluorocopolymer does not exceed 30 mg/ kg.
1064	39318-1 &u&gstenyes oxide	s no	no	0,05	Stoichio( $25$ ): WO $n^{-}, n^{-} = 2,72-2,90$
1065	85711-28a0xture yes of	s no	no	5	Only (26)] to be

	methyl- branche and linear C 14 - C 18 alkanar derived from fatty acids	nides,		used in the manufacture of articles made of polyolefins, and which do not come into contact with foods for which food simulant D2 is assigned in Table 2 of Annex III.
[ <sup>F33</sup> 1066	23985-75,2,3,4- tetrahyd dicarbo acid, dimethy ester	ronaphthalene-2 xylic	no ( 2,6-	Only to be used as a co- monomer in the manufacture of a polyester non- food contact layer in a plastic multilayer material, which is to be used only in contact with foods

							for which food simulan A, B, C and/ or D1 are assigned in Table 2 of Annex III. The specific migratic limit in column 8 refers to the sum of the substand and of its dimers (cyclic and open chain). ]	1 on
[ <sup>F42</sup> 1067	616-38-	6dimethy carbona	'ho te	yes	no		Only to be used: a)	(27)] with 1,6- hexanediol in the manufacture of polycarbonate pre- polymers that are used at up

to 30 % to manufacture thermoplastic polyurethanes with 4,4'methylenediphenyldiisocya and diols, such as polypropylene glycol and 1,4butanediol. The resulting material shall only be applied in repeated use articles intended to come into shortterm contact  $(\leq 30 \min$ at room temperature) with food for which simulants А and/ or В are assigned in Table

				b)	2 of Annex III; or for the production of other polycarbonates and/ or under other conditions provided that the migration of dimethyl carbonate does not exceed 0,05 mg/ kg food and that the migration of all polycarbonate oligomers with a molecular
					that the migration of all polycarbonate oligomers with

<sup>F33</sup> 1068	2530-83	<b>-8</b> - (2,3-	no	yes	no	Only to be
		(2,3-				
		epoxyp	ropoxy)]	propyl]tri	metnoxy	used
		silane				as a
						component
						of a
						sizing
						agent
						to treat
						glass
						fibres
						to be
						embedded
						in
						glass-
						fibre-
						reinforced
						low
						diffusivity
						plastics
						(polyethylene
						terephthalate
						(PET),
						polycarbonate
						(PC),
						polybutylene
						toronbthalata
						terephthalate
						(PBT),
						thermoset
						polyesters
						and
						epoxy
						bisphenol
						vinylester)
						in
						contact
						with
						all
						foodstuffs.
						In Inoustans.
						treated
						glass
						fibres,
						residues
						of the
						substance
						must
						not be
						detectable
						at
						0,01 mg/
						kg for
			1	1	1	the

						substance and 0,06 mg/ kg for each of the reaction products (hydrolysed monomers and epoxy- containing cyclic dimer, trimer and tetramer). ]
[ <sup>F42</sup> 1069	75-28-5	isobutar	ngres	no	no	Only to be used as a blowing agent. ]
[ <sup>F43</sup> 1075		clay modifie with	yltrimet	no hylammo	no	Only to be used as additive at up to 4,0 % w/ w in polylactic acid plastics intended for long- term storage of water at ambient temperature or below. Can form

							platelets in the nanoform that are in one or two dimensions thinner than 100 nm. Such platelets shall be oriented parallel to the polymer surface and shall be fully embedded in the
1076	122793	7P466spho acid, tripheny ester, polymer with alpha- hydro- omega- hydroxy ethaned C10-16 alkyl ester	/l r /poly[ox]	no y(methyl	no -1,2-	0,05	polymer. Only to be used as an additive at up to 0,2 % w/w in high impact polystyrene materials and articles intended contact with food at room temperature and below, including hot-fill

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		I			l		I	I	and/or	I
									heating	
									up to	
									100 °C	
									for up	
									to 2	
									hours.	
									It shall	
									not be used	
									in	
									contact	
									with	
									foods	
									for	
									which	
									simulan C and/	t
									or or	
									D1 is	
									assigned	d
									in	
									Annex	
									III.	
107	77			Titaniur dioxide	nyes	no	no		Only to be	29]
				surface-					used at	
				treated					up to	
				with					25,0 %	
				fluoride					w/w,	
				modifie					includin in the	ıg
				alumina					nanofor	m
	011	202 10 11	2005 - 28						Indito101	111.
a b		302, 19.11. 330, 5.12.1	_							
		253, 20.9.2								
c d			· •	EID N. 221	/2012 - 603	March 2012	lavia - 1			atadin
u		exes II and I						n specifications of food ment and of the Counci		
e	OJ L	158, 18.6.2	008, p. 17.							
f								f the European Parliam		
								od for special medical j EC, Commission Direc		
	1999	/21/EC, 200	6/125/EC at	nd 2006/141	/EC, Direct	ive 2009/39	/EC of the E	European Parliament and 81, 29.6.2013, p. 35 ).]	d of the Cou	
g		restriction is narket and ir				gards the ma	nufacture ar	nd from 1 June 2011 as	regards the	placing on
h	[ <sup>F26</sup> O	J L 83, 22.3	.2012, p. 1 .	]						
i	[ <sup>F27</sup> Ir	ıfant as defii	ned in Artic	le 2(2)(a) of	Regulation	(EU) No 60	9/2013.			
j	Your	ng children a	s defined in	Article 2(2)	)(b) of Regu	lation (EU)	No 609/201	3.]		

#### **Editorial Information**

X1 Substituted by Corrigendum to Commission Regulation (EU) No 1183/2012 of 30 November 2012 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Official Journal of the European Union L 338 of 12 December 2012).

#### **Textual Amendments**

- **F23** Inserted by Commission Regulation (EU) 2015/174 of 5 February 2015 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F24** Inserted by Commission Implementing Regulation (EU) No 321/2011 of 1 April 2011 amending Regulation (EU) No 10/2011 as regards the restriction of use of Bisphenol A in plastic infant feeding bottles (Text with EEA relevance).
- **F25** Substituted by Commission Regulation (EU) 2018/213 of 12 February 2018 on the use of bisphenol A in varnishes and coatings intended to come into contact with food and amending Regulation (EU) No 10/2011 as regards the use of that substance in plastic food contact materials (Text with EEA relevance).
- **F26** Inserted by Commission Regulation (EU) No 1183/2012 of 30 November 2012 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F27** Inserted by Commission Regulation (EU) 2018/213 of 12 February 2018 on the use of bisphenol A in varnishes and coatings intended to come into contact with food and amending Regulation (EU) No 10/2011 as regards the use of that substance in plastic food contact materials (Text with EEA relevance).
- **F28** Deleted by Commission Regulation (EU) 2017/752 of 28 April 2017 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F29** Substituted by Commission Regulation (EU) 2015/174 of 5 February 2015 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F30** Substituted by Commission Regulation (EU) No 1183/2012 of 30 November 2012 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F31** Substituted by Commission Regulation (EU) No 1282/2011 of 28 November 2011 amending and correcting Commission Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F32** Substituted by Commission Regulation (EU) No 202/2014 of 3 March 2014 amending Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F33** Substituted by Commission Regulation (EU) 2019/37 of 10 January 2019 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F34** Deleted by Commission Regulation (EU) 2015/174 of 5 February 2015 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F35** Substituted by Commission Regulation (EU) 2018/831 of 5 June 2018 amending Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F36** Inserted by Commission Regulation (EU) No 1282/2011 of 28 November 2011 amending and correcting Commission Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F37** Substituted by Commission Regulation (EU) 2018/79 of 18 January 2018 amending Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).

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the Commission Regulation (EU) No 10/2011. (See end of Document for details)

- **F38** Inserted by Commission Regulation (EU) No 202/2014 of 3 March 2014 amending Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F39** Inserted by Commission Regulation (EU) 2017/752 of 28 April 2017 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F40** Substituted by Commission Regulation (EU) 2019/1338 of 8 August 2019 amending Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F41** Inserted by Commission Regulation (EU) 2018/79 of 18 January 2018 amending Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F42** Inserted by Commission Regulation (EU) 2019/37 of 10 January 2019 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).
- **F43** Inserted by Commission Regulation (EU) 2020/1245 of 2 September 2020 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).

#### **Textual Amendments**

**F22** Word in Annex 1 point 1 omitted (31.12.2020) by virtue of The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, **76**; 2020 c. 1, Sch. 5 para. 1(1)

### 2. Group restriction of substances

Table 2 on Group restrictions contains the following information:

Column 1 (Group restriction No): contains the identification number of the group of substances for which the group restriction applies. It is the number referred to in Column 9 in Table 1 of this Annex.

Column 2 (FCM substance No): contains the unique identification numbers of the substances for which the group restriction applies. It is the number referred to in Column 1 in Table 1 of this Annex.

Column 3 (SML (T) [mg/kg]): contains the total specific migration limit for the sum of substances applicable to this group. It is expressed in mg substance per kg food. It is indicated ND if the substance shall not migrate in detectable quantities.

Column 4 (Group restriction specification): contains an indication of the substance whose molecular weight forms the basis for expression of the result.

(1)	(2)	(3)	(4)
Group Restriction No	FCM substance No	SML (T)[mg/kg]	Group restriction specification
1	128 211	6	expressed as acetaldehyde
[ <sup>F3</sup> 2	89 227	30	expressed as ethyleneglycol]

#### TABLE 2

	263 1048		
3	234 248	30	expressed as maleic acid
4	212 435	15	expressed as caprolactam
5	137 472	3	expressed as the sum of the substances
6	412 512 513 588	1	expressed as iodine
7	19 20	1,2	expressed as tertiary amine
8	317 318 319 359 431 464	6	expressed as the sum of the substances
9	650 695 697 698 726	0,18	expressed as tin
10	28 29 30 31 32 33 466 582 618 619 620 646 676 736	0,006	expressed as tin
11	66 645 657	1,2	expressed as tin
12	444 469 470	30	expressed as the sum of the substances
13	163 285	1,5	expressed as the sum of the substances

[ <sup>F31</sup> 14	294 368	5	expressed as the sum of the substances and their oxidation
	894]		products
[ <sup>F29</sup> 15	98 196 344	15	expressed as formaldehyde]
16	407 583 584 599	6	expressed as boron Without prejudice to the provisions of Directive 98/83/EC
17	4 167 169 198 274 354 372 460 461 475 476 485 490 653	ND	expressed as isocyanate moiety
18	705 733	0,05	expressed as the sum of the substances
19	505 516 519	10	expressed as SO <sub>2</sub>
20	290 386 390	30	expressed as the sum of the substances
21	347 349	5	expressed as trimellitic acid
22	70 147 176 218 323 325 365 371 380 425 446 448 456	6	expressed as acrylic acid

	636		
23	$ \begin{array}{c} 150\\ 156\\ 181\\ 183\\ 184\\ 355\\ 370\\ 374\\ 439\\ 440\\ 447\\ 457\\ 482\\ \end{array} $	6	expressed as methacrylic acid
24	756 758	5	expressed as the sum of the substances
25	720 747	0,05	sum of mono- n-dodecyltin tris(isooctylmercaptoacetate), di-n-dodecyltin bis(isooctyl mercaptoacetate), mono-dodecyltin trichloride and di- dodecyltin dichloride) expressed as the sum of mono- and di- dodecyltin chloride
26	728 729	9	expressed as the sum of the substances
27	188 291	5	expressed as isophthalic acid
28	191 192 785	7,5	expressed as terephthalic acid
29	342 672	0,05	expressed as the sum of 6-hydroxyhexanoic acid and caprolactone
[ <sup>F29</sup> 30	254 344 672	5	expressed as 1,4- butanediol]
31	73 797	30	expressed as the sum of the substances
32	8 72 73 138	60	expressed as the sum of the substances

	140	I	
	140 157		
	159		
	207		
	242		
	283		
	532		
	670		
	728		
	729		
	775		
	783 797		
	798		
	810		
	815		
[ <sup>F26</sup> 33	180 874	ND	expressed as eugenol]
[ <sup>F38</sup> 34	421 988	0,05	Expressed as 1,3- benzenedimethanamine]
[ <sup>F42</sup> 35	467 744 1059	0,05	expressed as crotonic acid]

## 3. Notes on verification of compliance

Table 3 on notes on verification of compliance contains the following information:

Column 1 (Note No): contains the identification number of the Note. It is the number referred to in Column 11 in Table 1 of this Annex.

Column 2 (Notes on verification of compliance): contains rules that shall be respected when testing for compliance of the substance with specific migration limits or other restrictions or it contains remarks on situations where there is a risk of non-compliance.

TABLE 3	
---------	--

(1)	(2)
Note No	Notes on verification of compliance
(1)	Verification of compliance by residual content per food contact surface area (QMA) pending the availability of an analytical method.
(2)	There is a risk that the SML or OML could be exceeded in fatty food simulants.
(3)	There is a risk that the migration of the substance deteriorates the organoleptic characteristics of the food in contact and then, that the final product does not comply

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	with Article 3(1) c of the Framework Regulation (EC) No 1935/2004.
[ <sup>F30</sup> (4)	Compliance testing when there is a fat contact [ <sup>F3</sup> shall] be performed using saturated fatty food simulants as simulant D2.]
(5)	Compliance testing when there is a fat contact [ <sup>F3</sup> shall] be performed using isooctane as substitute of simulant D2 (unstable).
(6)	Migration limit might be exceeded at very high temperature.
(7)	If testing in food is performed, Annex V 1.4 shall be taken into account.
(8)	Verification of compliance by residual content per food contact surface area (QMA); $QMA = 0,005 \text{ mg/6 dm}^2$ .
(9)	Verification of compliance by residual content per food contact surface area (QMA) pending the availability of analytical method for migration testing. The ratio surface to quantity of food shall be lower than 2dm <sup>2</sup> /kg.
(10)	Verification of compliance by residual content per food contact surface area (QMA) in case of reaction with food or simulant.
(11)	Only a method of analysis for the determination of the residual monomer in the treated filler is available.
(12)	There is a risk that the SML could be exceeded from polyolefins.
(13)	Only a method for determination of the content in polymer and a method for determination of the starting substances in food simulants are available.
(14)	There is a risk that the SML could be exceeded from plastics containing more than 0,5 % w/w of the substance.
(15)	There is a risk that the SML could be exceeded in contact with foods with high alcoholic content.
(16)	There is a risk that the SML could be exceeded from low-density polyethylene (LDPE) containing more than 0,3 % w/w of the substance when in contact with fatty foods

(17)	Only a method for determination of the residual content of the substance in the polymer is available
[ <sup>F36</sup> (18)	There is a risk that the SML could be exceeded from low-density polyethylene (LDPE)
(19)	There is a risk that the OML could be exceeded in direct contact with aqueous foods from ethylvinylalcohol (EVOH) and polyvinylalcohol (PVOH) copolymers]
[ <sup>F38</sup> (20)	The substance contains aniline as an impurity; verification of compliance with the restriction set for primary aromatic amines in Annex II (2) is necessary]
[ <sup>F23</sup> (21)	In case of reaction with foods or simulants verification of compliance shall include verification that the migration limits of the hydrolysis products, formaldehyde and 1,4- butanediol, are not exceeded.]
[ <sup>F4</sup> (22)	When used in contact with non-alcoholic foods for which Table 2 of Annex III assigns food simulant D1, food simulant C shall be used for verification of compliance instead of food simulant D1.
(23)	When a final material or article containing this substance is placed on the market, a well described method to determine whether the oligomer migration complies with the restrictions specified in column 10 of Table 1 shall form part of the supporting documentation referred to in Article 16. This method shall be suitable for use by a competent authority to verify compliance. If an adequate method is publicly available, reference shall be made to that method. If the method requires a calibration sample, a sufficient sample shall be supplied to the competent authority on its request.]
[ <sup>F39</sup> (24)	The substance or its hydrolysis products are authorised food additives and compliance with Article 11(3) shall be verified.]
[ <sup>F41</sup> (25)	When used as reheat agent in polyethylene terephthalate (PET) verification of compliance with the specific migration limit is not required; in all other cases compliance with the specific migration limit shall be verified in accordance with Article 18; the

8	Status: Point in time view as at 31/12/2020. o legislation: There are currently no known outstanding effects for sion Regulation (EU) No 10/2011. (See end of Document for details)
	specific migration limit is expressed as mg tungsten/kg food.
(26)	Migration of stearamide, listed in Table 1 under FCM substance No 306 to which no specific migration limit applies, shall be excluded from verification of the compliance of the migration of the mixture with the specific migration limit laid down for the mixture.]
[ <sup>F42</sup> (27)	When a final material or article containing this substance and produced under conditions other than those described in point (a) column 10 of Table 1 is placed on the market, a well described method to determine whether the oligomer migration complies with the restrictions specified in point (b) column 10 of Table 1 shall form part of the supporting documentation referred to in Article 16. This method shall be suitable for use by a competent authority to verify compliance. If an adequate method is publicly available, reference shall be made to that method. If the method requires a calibration sample, a sufficient sample shall be supplied to the competent authority on its request.]
[ <sup>F43</sup> (28)	A detection limit of 0,002 mg/kg food or food simulant applies
(29)	In polar polymers which swell in contact with foods for which simulant B is assigned in Annex III, there is a risk that under severe contact conditions the migration limits for aluminium and fluoride are exceeded. Under contact conditions above 4 hours at 100 °C this exceedance can be high.]

4. Detailed specification on substances

Table 4 on detailed specifications on substances contains the following information

Column 1 (FCM substance No): contains the unique identification number of the substances referred to in Column 1 in Table 1 of Annex I to which the specification applies.

Column 2 (Detailed specification on the substance): contains the specification on the substance.

TABLE	4

(1)	(2)
FCM substance No	Detailed specification on the substance

744	Definition	The copolymers are produced by the controlled fermentation of Alcaligenes eutrophus using mixtures of glucose and propanoic acid as carbon sources. The organism used has not been genetically engineered and has been derived from a single wildtype organism Alcaligenes eutrophus strain H16 NCIMB 10442. Master stocks of the organism are stored as freeze-dried ampoules. A submaster/ working stock is prepared from the master stock and stored in liquid nitrogen and used to prepare inocula for the fermenter. Fermenter samples will be examined daily both microscopically and for any changes in colonial morphology on a variety of agars at different temperatures. The copolymers are isolated from heat treatment bacteria by controlled digestion of the other cellular components, washing and drying. These copolymers are normally offered as formulated, melt formed granules containing additives such as nucleating agents, plasticisers, fillers, stabilisers and pigments which all conform to the
	Chamical serve	general and individual specifications
	Chemical name	Poly(3-D-hydroxybutanoate- co-3-D-hydroxypentanoate)
	CAS number	0080181-31-3
	Structural formula	where $n/(m + n)$ greater than 0 and less or equal to 0,25

Average molecular weight	Not less than 150 000 Daltons (measured by gel permeation chromatography)
Assay	Not less than 98 % poly(3- D-hydroxybutanoate-co-3-D- hydoxy-pentanoate) analysed after hydrolysis as a mixture of 3-D-hydro-xybutanoic and 3-D-hydroxypentanoic acids
 Description	White to off-white powder after isolation
Characteristics	
 Identification tests:	
 Solubility	Soluble in chlorinated hydrocarbons such as chloroform or dichloromethane but practically insoluble in ethanol, aliphatic alkanes and water
[ <sup>F33</sup> Restriction	Specific migration limit for crotonic acid is 0,05 mg/kg food]
 Purity	Prior to granulation the raw material copolymer powder must contain:
 — nitrogen,	Not more than 2 500 mg/kg of plastic
 — zinc,	Not more than 100 mg/kg of plastic
 — copper,	Not more than 5 mg/kg of plastic
 — lead,	Not more than 2 mg/kg of plastic
 — arsenic,	Not more than 1 mg/kg of plastic
 — chromium,	Not more than 1 mg/kg of plastic

# [<sup>F13</sup>ANNEX II

## **Restrictions on plastic materials and articles**

The following restrictions on plastic materials and articles apply:

1. Plastic materials and articles shall not release the substances in Table 1 below in quantities exceeding the specific migration limits expressed in mg/kg food or simulant specified in column (3), and subject to the remarks in Column (4).

Substances listed in Table 1 shall only be used in accordance with the compositional requirements set out in Chapter II. If Chapter II does not provide a basis for the authorised use of such a substance, that substance may only be present as an impurity subject to the restrictions specified in Table 1.

### Table 1

# General list of migration limits for substances migrating from plastic materials and articles

(1)	(2)	(3)	(4)
Name	Salts allowed in accordance with Article 6(3)(a)	SML [mg/kg food or food simulant]	Remark
Aluminium	yes	1	
Ammonium	yes		(1)
Antimony	no	0,04	(2)
Arsenic	no	ND	
Barium	yes	1	
Cadmium	no	ND (LOD 0,002)	
Calcium	yes		(1)
Chromium	no	ND	(3)
Cobalt	yes	0,05	
Copper	yes	5	
Europium	yes	0,05	(4)
Gadolinium	yes	0,05	(4)
Iron	yes	48	
Lanthanum	yes	0,05	(4)
Lead	no	ND	
Lithium	yes	0,6	
Magnesium	yes		(1)
Manganese	yes	0,6	
Mercury	no	ND	

#### Table 1

#### General list of migration limits for substances migrating from plastic materials and articles

Nickel	no	0,02	
Potassium	yes		(1)
Sodium	yes		(1)
Terbium	yes	0,05	(4)
Zinc	yes	5	

ND:Not Detectable; detection limit assigned in accordance with second subparagraph of Article 11(4); LOD: specified Limit of Detection.

#### Remarks

(1)The migration is subject to Article 11(3) and Article 12

(2)The note in Annex I, Table 1, FCM No 398 applies: SML might be exceeded at very high temperature

(3)To verify compliance with the Regulation, the detection limit of 0,01 mg/kg shall apply for total chromium. However if the operator that placed the material on the market can prove on the basis of pre-existing documentary evidence that the presence of hexavalent chromium in the material is excluded because it is not used or formed or during the entire production process, a limit for the total chromium of 3,6 mg/kg food shall apply.

(4)The lanthanide substances europium, gadolinium, lanthanum, and/or terbium can be used in accordance with Article 6(3)(a) provided that: (a)

- The sum of all lanthanide substances migrating to the food or food simulant does not exceed the specific migration limit of 0,05 mg/kg; and analytical evidence using a well described methodology demonstrating
- (b) that the lanthanide substance(s) used are present in dissociated ionic form in the food or the food simulant, forms part of the documentation referred to in Article 16.
- 2. Primary aromatic amines ('PAAs') listed in entry 43 to Appendix 8 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council<sup>(19)</sup> and for which no migration limit is specified in Table 1 of Annex I shall not migrate or shall not otherwise be released from plastic materials and articles into food or food simulant. They shall not be detectable using analytical equipment with a limit of detection of 0,002 mg/kg food or food simulant applied to each individual primary aromatic amine ('PAA'), in accordance with Article 11(4).

For PAAs not listed in entry 43 to Appendix 8 of Annex XVII to Regulation (EC) No 1907/2006, but for which no specific migration limit is specified in Annex I, compliance with Article 3 of Regulation (EC) No 1935/2004 shall be verified in accordance with Article 19. The sum of those PAAs shall however not exceed 0,01 mg/ kg in food or food simulant.]

#### ANNEX III

#### Food simulants

#### Food simulants 1.

For demonstration of compliance for plastic materials and articles not yet in contact with food the food simulants listed in Table 1 below are assigned.

## [<sup>F3</sup>TABLE 1

List of food simulants	
Food simulant	Abbreviation
Ethanol 10 % (v/v)	Food simulant A
Acetic acid 3 % (w/v)	Food simulant B
Ethanol 20 % (v/v)	Food simulant C
Ethanol 50 % (v/v)	Food simulant D1
Any vegetable oil containing less than 1 % unsaponifiable matter	Food simulant D2
poly(2,6-diphenyl-p-phenylene oxide), particle size 60-80 mesh, pore size 200 nm	Food simulant E]

#### 2. General assignment of food simulants to foods

Food simulants A, B and C are assigned for foods that have a hydrophilic character and are able to extract hydrophilic substances. Food simulant B shall be used for those foods which have a pH below 4.5. Food simulant C shall be used for alcoholic foods with an alcohol content of up to 20 % and those foods which contain a relevant amount of organic ingredients that render the food more lipophilic.

Food simulants D1 and D2 are assigned for foods that have a lipophilic character and are able to extract lipophilic substances. Food simulant D1 shall be used for alcoholic foods with an alcohol content of above 20 % and for oil in water emulsions. Food simulant D2 shall be used for foods which contain free fats at the surface.

Food simulant E is assigned for testing specific migration into dry foods.

# [<sup>F3</sup>3. Specific assignment of food simulants to foods for migration testing of materials and articles not yet in contact with food

For testing migration from materials and articles not yet in contact with food the food simulants that corresponds to a certain food category shall be chosen according to Table 2 below.

For testing migration from materials and articles intended to come into contact with foods not listed in Table 2 below, or a combination of foods, the general food simulant assignments in point 2 shall be used for specific migration testing, and for overall migration testing the food simulant assignments in point 4 shall be applicable.

Table 2 contains the following information:

- Column 1 (Reference number): contains the reference number of the food category
- Column 2 (Description of food): contains a description of the foods covered by the food category
- Column 3 (Food simulants): contains sub-columns for each of the food simulants

The food simulant for which a cross is contained in the respective sub-column of column 3 shall be used when testing migration of materials and articles not yet in contact with food.

For food categories where in sub-column D2 or E the cross is followed by an oblique stroke and a figure, the migration test result shall be corrected by dividing the result by this figure. The corrected test result shall then be compared to the migration limit to establish compliance. The

test results for substances that shall not migrate in detectable quantities shall not be corrected in this way.

For food category 01.04 food simulant D2 shall be replaced by 95 % ethanol.

For food categories where in sub-column B the cross is followed by (\*) the testing in food simulant B can be omitted if the food has a pH of more than 4,5.

For food categories where in sub-column D2 the cross is followed by (\*\*) the testing in food simulant D2 can be omitted if it can be demonstrated that there is no 'fatty contact' with the plastic food contact material.]

#### TABLE 2

food category specific assignment of food simulants

$\frac{1000 \text{ catego}}{(1)}$	(2)	(3)		ilailto			
	Description		ulants				
number	of food	A	В	С	D1	D2	Е
01	Beverages						
01.01	Non- alcoholic beverages or alcoholic beverages of an alcoholic strength lower than or equal to 6 % vol.:						
			X(*)	X			

	tea, beers, soft drinks, energy drinks and the like, flavoured water, liquid coffee extract						
		oudy rinks:	X(*)		X		
01.02	Alcoholic beverages of an alcoholic strength of between 6 %vol and 20 %.			X			
01.03	Alcoholic beverages of an alcoholic strength above 20 % and all cream liquors				X		
01.04	Miscellane undenatura ethyl alcohol		X(*)			Substitute 95 % ethanol	
02	Cereals, cereal						

	products, pastry, biscuits, cakes and other bakers' wares				
02.01	Starches				Х
02.02	Cereals, unprocesse puffed, in flakes (including popcorn, corn flakes and the like)				X
02.03	Cereal flour and meal				Х
02.04	Dry pasta e.g. macaroni, spaghetti and similar products and fresh pasta				X
02.05	Pastry, biscuits, cakes, bread, and other bakers' wares, dry:				
	fa s o tl	Vith atty ubstances n ne urface		X/3	
	B. C	ther			Х
02.06	Pastry, cakes,				

	bread, dough and other bakers' wares, fresh:				
	fa s' o tl	Vith atty ubstances n ne urface		X/3	
	B. C	Other			Х
03	Chocolate sugar and products thereof Confection products				
03.01	Chocolate, chocolate- coated products, substitutes and products coated with substitutes			X/3	
03.02	Confection products:	nery			
		n olid orm:			
	fa s o tl	With atty ubstances n he urface		X/3	
	II. C	Other			Х

			γ		r	1	-r
		In paste førm:					
		With fatty substances on the surface				X/2	
	II.	Moist		X			
03.03	Sugar and sugar products	r					
		In solid form: crystal or powder					X
		X Molasses, sugar syrups, honey and the like					
04	Fruit, vegetable and products thereof						
[ <sup>F3</sup> 04.01	Fruit, fresh or chilled:						
		unpeeled and uncut					X/10
		X peeled and/ or cut	X (*)				]

04.02	Process fruit:	sed					
	A.	Dried or dehydrated fruits, whole, sliced, flour or powder					X
	B.	Fruit in the form of purée, preserves, pastes or in its own juice or in sugar syrup (jams, compote, and similar products)	X(*)	X			
	C.	Fruit preserved in a liquid medium:					
	I.	In an oily medium				X	
	II.	In an			X		

		lcoholic nedium				
04.03	Nuts (peanuts, chestnuts, almonds, hazelnuts, walnuts, pine kernels and others):					
	d f c	Shelled, Iried, laked or owdered				X
	a r	Shelled nd oasted				X
		X n baste or or or or or or			Х	
[ <sup>F3</sup> 04.04	Vegetables fresh or chilled:	3,				
	a	mpeeled nd mcut				X/10
	a C	X peeled nd/ pr sut	X (*)			]
[ <sup>F3</sup> 04.05	c d v v v s	: Dried				X

		the					
		form					
		of flour					
		or					
		powder.					
		<b>r</b>					
	B.	(obsolete)					
	C.	Vegetables in the	X (*)	X			
		form of					
		purée,					
		preserves, pastes					
		or in					
		in its					
		own					
		juice					
		(including					
		pickled					
		and in					
		brine).					
	D.	Preserved vegetables:					
	т	X				Х	
	I.	In an					
		oily					
		medium					
					X		]
	II.	In					
		an alcoholic					
		medium					
05	Fats and						
	oils						
05.01	Animals and					Х	
	vegetable	e					
	fats and	-					
	oils,						
	whether						
	natural						
	or treated (includin						
		15		I			l

	cocoa butter, lard, resolidified butter)	1				
05.02	Margarine, butter and other fats and oils made from water emulsions in oil				X/2	
06	Animal products and eggs					
06.01	Fish:					
	c p s o s iii f	X resh, hilled, rocessed, alted r moked ncluding ish ggs			X/3(**)	
		reserved ish:				
	0	X n ily nedium			Х	
	a	n n queous nedium	X(*)	X		
06.02	Crustacear and molluscs (including oysters, mussels, snails)					

t v	Fresh within he shell				
	Shell emoved, processed, preserved or cooked with he shell				
(	X n an oily nedium			X	
 8	in in iqueous nedium	X(*)	X		
Meat of all zoological species (including poultry and game):					
 C S	X Fresh, chilled, salted, smoked			X/4(**)	
	X Processed neat products such as nam, salami, pacon, sausages, and pher) or			X/4(**)	

		in the form of paste, creams				
		X Marinated meat products in an oily medium			X	
06.04	Preserved meat:	t				
		X In an fatty or oily medium			X/3	
		In an aqueous medium	X(*)	X		
06.05	Whole eggs, egg yolk, egg white	<b>7</b>				
		Powdered or dried or frozen				X
		Liquid and cooked		Х		
07	Milk products	5				
07.01	Milk					
	A.	Milk and milk		X		

	dr w pa dr ar sk or pa	ximmed				
	pc in in fo (b or w m	filk owder cluding fant ormula oased n hole ilk owder)				X
07.02	Fermented milk such as yoghurt, buttermilk and similar products		X(*)	X		
07.03	Cream and sour cream		X(*)	Х		
07.04	Cheeses:					
	w nc e¢	/hole, ith ot lible nd				X
	ch w rii or w ec rii (g ca	atural neese ithout nd ith lible nd gouda, membert, nd			X/3(**)	

		the like) and melting cheese				
	C.	Processed cheese (soft cheese, cottage cheese and similar)	X(*)	X		
	D.	Preserved cheese:				
	I.	In X an oily medium			X	
	II.	In an aqueous medium (feta, mozarella, and similar)	X(*)	X		
08	Miscella products					
08.01	Vinegar		X			
08.02	Fried or roasted foods:					
	А.	X Fried potatoes, fritters and the like			X/5	
	В.	Of animal origin			X/4	

08.03	Preparat for soup broths, sauces, in liquid	s,				
	solid or powder form					
	(extracts concentri homoge composi food preparat prepared dishes includin yeast an raising agents	rates); nised ite ions, 1 g				
	А.	Powdered or dried:				
	I.	With fatty character			X/5	
	II.	Other				Х
	B.	any other form than powdered or dried:				
	I.	X With fatty character	X(*)		X/3	
	II.	Other	X(*)	X		
08.04	Sauces:					
	А.	With aqueous character	X(*)	X		

	P	With	X(*)		X	
	B.	With fatty				
		character				
		e.g.				
		mayonnaise	,			
		sauces				
		derived				
		from				
		mayonnaise salad	,			
		creams				
		and				
		other				
		oil/				
		water				
		mixtures				
		e.g. coconut				
		based				
		sauces				
08.05	Mustard (except		X(*)		X/3(**)	
	powdere					
	mustard					
	under					
	heading 08.14)					
00.07		1				
08.06	Sandwic toasted	enes,				
	bread					
	pizza an	d				
	the like					
	containi	ng				
	any					
	kind of foodstuf	r				
	Toodstur				 	
	A.	X With			X/5	
	1 1.	fatty				
		substances				
		on				
		the				
		surface				
	B.	Other				X
08.07	Ice- creams			X		
08.08	Dried					
	foods:					

	fi s o tl	Vith atty ubstances n ne urface			X/5	
	В. С	Other				Х
08.09	Frozen or deep- frozen foods					X
08.10	Concentrate extracts of an alcoholic strength equal to or exceeding 6 % vol.	ted	X(*)	X		
08.11	p ii fi r a h fi	Cocoa owder, ncluding at- educed nd ighly at educed				X
		Cocoa aste			X/3	
08.12	Coffee, whether or not roasted, decaffeinat or soluble, coffee substitutes granulated or powdered	2				X
08.13	Aromatic					X

	<b>Chang</b> the Com	es to legislatio	on: There are cu	e view as at 31/12 urrently no known 10/2011. (See end	outstanding effe	ects for details)	
00.14	and other herbs such as camomile, mallow, mint, tea, lime blossom and others						
08.14	Spices and seasonings in the natural state such as cinnamon, cloves, powdered mustard, pepper, vanilla, saffron, salt and other						X
08.15	Spices and seasoning in oily medium such as pesto, curry paste					X	

# [<sup>F44</sup>4. Food simulant assignment for testing overall migration

For tests to demonstrate compliance with the overall migration limit food simulants shall be chosen as set out in Table 3:

### TABLE 3

# Food simulant assignment for demonstrating compliance with the overall migration limitFoods coveredFood simulants in which testing shall be

	performed
all types of food	1. distilled water or water of equivalent quality or food simulant A;

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	<ol> <li>food simulant B; and</li> <li>food simulant D2.</li> </ol>
all types of food except for acidic foods	1. distilled water or water of equivalent quality or food simulant A; and
	2. food simulant D2.
[ <sup>F33</sup> all aqueous and alcoholic foods and milk products with a $pH \ge 4,5$	food simulant D1
all aqueous and alcoholic foods and milk products with a $pH < 4,5$	food simulant D1 and food simulant B]
all aqueous foods and alcoholic foods up to an alcohol content of 20 %	food simulant C
all aqueous and acidic foods and alcoholic foods up to an alcohol content of 20 %	1. food simulant C; and
	2. food simulant B.J

#### **Textual Amendments**

**F44** Substituted by Commission Regulation (EU) 2017/752 of 28 April 2017 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).

### [<sup>F4</sup>5. General derogation to the assignment of food simulants

By derogation from the assignments of food simulants in points 2 to 4 of this Annex, where testing with several food simulants is required, a single food simulant shall be sufficient if on the basis of evidence acquired using generally recognised scientific methods this food simulant is shown to be the most severe food simulant for the particular material or article being tested under the applicable time and temperature conditions selected in accordance with Chapters 2 and 3 of Annex V.

The scientific basis on which this derogation is used shall in such cases form part of the documentation required under Article 16 of this Regulation.]

#### ANNEX IV

#### Declaration of compliance

The written declaration referred to in Article 15 shall contain the following information:

- (1) the identity and address of the business operator issuing the declaration of compliance;
- (2) the identity and address of the business operator which manufactures or imports the plastic materials or articles or products from intermediate stages of their

manufacturing or the substances intended for the manufacturing of those materials and articles;

- (3) the identity of the materials, the articles, products from intermediate stages of manufacture or the substances intended for the manufacturing of those materials and articles;
- (4) the date of the declaration;
- (5) [<sup>F3</sup>confirmation that the plastic materials or articles, products from intermediate stages of manufacture or the substances meet the relevant requirements laid down in this Regulation and in Article 3, 11(5), 15 and 17 of Regulation (EC) No 1935/2004;]
- (6) [<sup>F13</sup>adequate information relative to the substances used or products of degradation thereof for which restrictions and/or specifications are set out in Annex I and II to the Regulation to allow the downstream business operators to ensure compliance with the Regulation.

At intermediate stages, this information shall include the identification and amount of substances in the intermediate material,

- that are subject to restrictions in Annex II, or
- for which genotoxicity has not been ruled out, and which originate from an intentional use during a manufacturing stage of that intermediate material and which could be present in an amount that foreseeably gives rise to a migration from the final material exceeding 0,00015 mg/kg food or food simulant;]
- (7) adequate information relative to the substances which are subject to a restriction in food, obtained by experimental data or theoretical calculation about the level of their specific migration and, where appropriate, purity criteria in accordance with Directives 2008/60/EC, 95/45/EC and 2008/84/EC to enable the user of these materials or articles to comply with the <sup>F45</sup>... provisions applicable to food;
- (8) specifications on the use of the material or article, such as:
  - (i) type or types of food with which it is intended to be put in contact;
  - (ii) time and temperature of treatment and storage in contact with the food;
  - (iii) [<sup>F44</sup>the highest food contact surface area to volume ratio for which compliance has been verified in accordance with Article 17 and 18 or equivalent information;]
- (9) when a functional barrier is used in a multi-layer material or article, the confirmation that the material or article complies with the requirements of Article 13(2), (3) and (4) or Article 14(2) and (3) of this Regulation.

#### **Textual Amendments**

**F45** Words in Annex 4 para. 7 omitted (31.12.2020) by virtue of The Materials and Articles in Contact with Food (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/704), regs. 1, 77; 2020 c. 1, **Sch. 5 para. 1(1)** 

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#### ANNEX V

#### COMPLIANCE TESTING

For testing compliance of migration from plastic food contact materials and articles the following general rules apply.

## CHAPTER 1

#### Testing for specific migration of materials and articles already in contact with food

1.1. Sample preparation

The material or article shall be stored as indicated on the packaging label or under conditions adequate for the packaged food if no instructions are given. The food shall be removed from contact with the material or article before its expiration date or any date by which the manufacturer has indicated the product should be used for reasons of quality or safety.

1.2. Conditions of testing

The food shall be treated in accordance with the cooking instructions on the package if the food is to be cooked in the package. Parts of the food which are not intended to be eaten shall be removed and discarded. The remainder shall be homogenised and analysed for migration. The analytical results shall always be expressed on the basis of the food mass that is intended to be eaten, in contact with the food contact material.

1.3. Analysis of migrated substances

The specific migration is analysed in the food using an analytical method in accordance with the requirements of Article 11 of Regulation (EC) No 882/2004.

## [<sup>F3</sup>1.4. Account of substances originating from other sources

In case there is evidence linked to the food sample that a substance partially or wholly originates from a source or sources other than the material or article for which the test is being carried out, the test results shall be corrected for the amount of that substance originating from the other source or sources before comparing the test results to the applicable specific migration limit.]

#### CHAPTER 2

#### Testing for specific migration of materials and articles not yet in contact with food

#### 2.1. Verification method

Verification of compliance of migration into foods with the migration limits shall be carried out under the most extreme conditions of time and temperature foreseeable in actual use taking into account paragraphs 1.4, 2.1.1, 2.1.6 and 2.1.7.

Verification of compliance of migration into food simulants with the migration limits shall be carried out using conventional migration tests according to the rules set out in paragraphs 2.1.1 to 2.1.7.

2.1.1. Sample preparation

The material or article shall be treated as described by accompanying instructions or by provisions given in the declaration of compliance.

Migration is determined on the material or article or, if this is impractical, on a specimen taken from the material or article, or a specimen representative of this material or article. For each food simulant or food type, a new test specimen is used. Only those parts of the sample which are intended to come into contact with foods in actual use shall be placed in contact with the food simulant or the food.

#### 2.1.2. Choice of food simulant

Materials and articles intended for contact with all types of food shall be tested with food simulant A, B and D2. However, if substances that may react with acidic food simulant or foods are not present testing in food simulant B can be omitted.

Materials and articles intended only for specific types of foods shall be tested with the food simulants indicated for the food types in Annex III.

2.1.3. Conditions of contact when using food simulants

[<sup>F3</sup>The sample shall be placed in contact with the food simulant in a manner representing the worst of the foreseeable conditions of use as regard contact time in Table 1 and as regard contact temperature in Table 2.

By way of derogation to the conditions set out in Tables 1 and 2, the following rules apply:

- (i) If it is found that carrying out the tests under the combination of contact conditions specified in Tables 1 and 2 causes physical or other changes in the test specimen which do not occur under worst foreseeable conditions of use of the material or article under examination, the migration tests shall be carried out under the worst foreseeable conditions of use in which these physical or other changes do not take place;
- (ii) if the material or article during it intended use is subjected only to precisely controlled time and temperature conditions in food processing equipment, either as part of food packaging or as part of the processing equipment itself, testing may be done using the worst foreseeable contact conditions that can occur during the processing of the food in that equipment;
- (iii) if the material or article is intended to be employed only for hot-fill conditions, only a 2-hour test at 70 °C shall be carried out. However, if the material or article is intended to be used also for storage at room temperature or below, the test conditions set out in Tables 1 and 2 of this Section or in Section 2.1.4 of this Chapter apply depending on the duration of storage.
- (iv) [<sup>F43</sup>if the plastic material or article intended to come into contact with food of which the compliance must be verified becomes in its final application part of a food processing equipment or an appliance, or a part thereof, the migration tests may be carried out by determining the specific migration into the food or food simulant produced or processed by the whole equipment or appliance, or the part thereof, as appropriate, subject to the following conditions:
  - the food or food simulant is processed during testing by the equipment or part thereof in accordance with the worst foreseeable conditions that can be achieved if the equipment or its part is operated in accordance with its operating instructions, and
  - the migration from parts used for storage such as from reservoirs, containers, or capsules or pads which are part of the equipment during the processing of

the food, is determined using conditions representative for their use, unless the applied testing conditions for the whole tested equipment or appliance are representative also of their use.

When migration testing is done under the above conditions, and the transfer of constituents from the equipment or appliance as a whole does not exceed the migration limits, the plastic parts or materials present in the equipment or appliance shall be considered to comply with Article 11(1).

The testing of the parts used for storage or supply such as reservoirs, containers, capsules or pads shall be under conditions representative of their use, and shall include the foreseeable storage conditions of the food in these parts.

The supporting documentation referred to in Article 16 shall clearly document the testing on the whole food processing and/or food producing equipment or appliance, or on parts thereof. It shall demonstrate that the testing was representative of its foreseeable use, and shall indicate for which substances migration testing was carried out and provide all testing results. The manufacturer of individual plastic parts shall ensure the absence of migration for substances for which the Regulation specifies that their migration shall not be detectable at a specified level of detection in accordance with Article 11(4).

Compliance documentation supplied in accordance with the Regulation to the producer of the final equipment or appliance, or part thereof, shall list all substances subject to migration limits that might be exceeded under the foreseeable use of the supplied part or material.

When the result is not in compliance with the Regulation it shall be determined whether the source of the non-compliance is a plastic part subject to the Regulation or a part made from another material not subject to the Regulation on the basis of documentary evidence or analytical testing. Without prejudice to Article 3 of Regulation (EU) No 1935/2004, non-compliance to the Regulation shall only be established if the migration originates from a plastic part.]

If the testing conditions representative for the worst foreseeable conditions of intended use of the material or article, are not technically feasible in food simulant D2, migration tests shall be done using ethanol 95 % and isooctane. In addition a migration test shall be done using food simulant E if the temperature under the worst foreseeable conditions of intended use exceeds 100 °C. The test that results in the highest specific migration shall be used to establish compliance with this Regulation.]

#### TABLE 1

[ <sup>F3</sup> Selection of test time]					
[ <sup>F3</sup> Time to be selected for testing]					
5 min					
0,5 hour					
1 hour					
2 hours					
6 hours					
24 hours					

$1 \text{ day} < t \le 3 \text{ days}$	3 days
$3 \text{ days} < t \le 30 \text{ days}$	10 days
Above 30 days	See specific conditions

#### Selection of test temperature

Worst foreseeable contact temperature	Contact temperature to be selected for testing
$T \le 5 \ ^{\circ}C$	5 °C
$\overline{5 \ ^{\circ}C} < T \le 20 \ ^{\circ}C$	20 °C
$20 \text{ °C} < T \le 40 \text{ °C}$	40 °C
$40 \text{ °C} < T \le 70 \text{ °C}$	70 °C
$70 ^{\circ}\text{C} < \text{T} \le 100 ^{\circ}\text{C}$	100 °C or reflux temperature
100 °C < T ≤ 121 °C	121 °C <sup>a</sup>
121 °C < T ≤ 130 °C	130 °C <sup>a</sup>
130 °C < T ≤ 150 °C	150 °C <sup>a</sup>
150 °C < T < 175 °C	175 °C <sup>a</sup>
175 °C < T ≤ 200 °C	200 °C <sup>a</sup>
T > 200 °C	225 °C*

**a** This temperature shall be used only for food simulants D2 and E. For applications heated under pressure, migration testing under pressure at the relevant temperature may be performed. For food simulants A, B, C or D1 the test may be replaced by a test at 100 °C or at reflux temperature for duration of four times the time selected according to the conditions in Table 1.]

#### [<sup>F3</sup>2.1.4. Specific conditions for contact times above 30 days at room temperature and below

For contact times above 30 days (long term) at room temperature and below, the specimen shall be tested in accelerated test conditions at elevated temperature for a maximum of 10 days at  $60 \, {}^{\circ}C^{(20)}$ .

- (a) Testing for 10 days at 20 °C shall cover all storage times at frozen condition. This test can include the freezing and defrosting processes if labelling or other instructions ensure that 20 °C is not exceeded and the total time above -15 °C does not exceed 1 day in total during the foreseeable intended use of the material or article.
- (b) Testing for 10 days at 40 °C shall cover all storage times at refrigerated and frozen conditions including hot-fill conditions and/or heating up to 70 °C  $\leq$  T  $\leq$  100 °C for maximum t = 120/2^((T-70)/10) minutes.
- (c) Testing for 10 days at 50 °C shall cover all storage times of up to 6 months at room temperature, including hot-fill conditions and/or heating up to 70 °C  $\leq$  T  $\leq$  100 °C for maximum t = 120/2^((T-70)/10) minutes.

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- (d) Testing for 10 days at 60 °C shall cover storage above 6 months at room temperature and below, including hot-fill conditions and/or heating up to 70 °C  $\leq$  T  $\leq$  100 °C for maximum t = 120/2^((T-70)/10) minutes.
- (e) For storage at room temperature the testing conditions can be reduced to 10 days at 40 °C if it is shown by scientific evidence that migration of the respective substance in the polymer has reached equilibration under this test condition.
- (f) For worst foreseeable conditions of intended use not covered by the test conditions set out in points (a) to (e), the testing time and temperature conditions shall be based on the following formula:

t2 = t1 \* Exp (9627 \* (1/T2 - 1/T1))t1 is the contact time

t2 is the testing time

T1 is the contact temperature in Kelvin. For room temperature storage this is set at 298K (25 °C). For refrigerated conditions it is set at 278K (5 °C). For frozen storage it is set at 258 K (-15 °C).

- T2 is the testing temperature in Kelvin.]
- 2.1.5. Specific conditions for combinations of contact times and temperature

[<sup>F3</sup>If a material or article is intended for different applications covering different combinations of contact time and temperature the testing shall be restricted to the test conditions which are recognised to be the most severe on the basis of scientific evidence.]

If the material or article is intended for a food contact application where it is successively subject to a combination of two or more times and temperatures, the migration test shall be carried out subjecting the test specimen successively to all the applicable worst foreseeable conditions appropriate to the sample, using the same portion of food simulant.

# [<sup>F13</sup>2.1.6. Repeated use materials and articles

If the material or article is intended to come into repeated contact with foods, the migration test(s) shall be carried out three times on a single sample using another portion of food simulant on each occasion. The specific migration in the second test shall not exceed the level observed in the first test, and the specific migration in the third test shall not exceed the level observed in the second test.

Compliance of the material or article shall than be verified on the basis of the level of the migration found in the third test and on the basis of the stability of the material or article from the first to the third migration test. The stability of the material shall be considered insufficient if migration is observed above the level of detection in any of the three migration tests, and increases from the first migration test to the third migration test. In case of insufficient stability, compliance of the material shall not be established even in case the specific migration limit is not exceeded in any of the three tests.

However, if there is conclusive scientific proof that the level of the migration decreases in the second and third tests and if the migration limits are not exceeded on the first test, no further test is necessary.

Irrespective of the above rules, a material or article shall never be considered to comply with this Regulation if in the first test a substance that is prohibited from migrating or from being released in detectable quantities under Article 11(4) is detected.]

2.1.7. Analysis of migrating substances

At the end of the prescribed contact time, the specific migration is analysed in the food or food simulant using an analytical method in accordance with the requirements of Article 11 of Regulation (EC) No 882/2004.

## 2.1.8. Verification of compliance by residual content per food contact surface area (QMA)

For substances which are unstable in food simulant or food or for which no adequate analytical method is available it is indicated in Annex I that verification of compliance shall be undertaken by verification of residual content per 6  $dm^2$  of contact surface. For materials and articles between 500 ml and 10 l the real contact surface is applied. For materials and articles below 500 ml and above 10 l as well as for articles for which it is impractical to calculate the real contact surface the contact surface is assumed to be 6 dm<sup>2</sup> per kg food.

#### 2.2. Screening approaches

[<sup>F3</sup>To screen if a material or article complies with the migration limits any of the following approaches can be applied which are considered at least as severe as the verification method described in section 2.1.]

## 2.2.1. Replacing specific migration by overall migration

To screen for specific migration of non-volatile substances, determination of overall migration under test conditions at least as severe as for specific migration can be applied.

#### 2.2.2. Residual content

To screen for specific migration the migration potential can be calculated based on the residual content of the substance in the material or article assuming complete migration.

# [<sup>F3</sup>2.2.3. *Migration modelling*

To screen for specific migration, the migration potential can be calculated based on the residual content of the substance in the material or article applying generally recognised diffusion models based on scientific evidence that are constructed in a way that must never underestimate real levels of migration.]

## [<sup>F3</sup>2.2.4. Food simulant substitutes

To screen for specific migration, food simulants can be replaced by substitute food simulants if it is based on scientific evidence that the substitute food simulants result in migration that is at least as severe as migration that would be obtained using the food simulants specified in Section 2.1.2.]

## [<sup>F4</sup>2.2.5. Single test for successive combinations of time and temperature

If the material or article is intended for a food contact application where it is successively subject to two or more time and temperature combinations, a single migration contact test time can be defined based on the highest contact test temperature from Section 2.1.3 and/or 2.1.4 by using the equation as described in point (f) of Section 2.1.4. The reasoning justifying that the resulting single test is at least as severe as the combined time and temperature combinations shall be documented in the supporting documentation provided for in Article 16.]

Status: Point in time view as at 31/12/2020.

**Changes to legislation:** There are currently no known outstanding effects for the Commission Regulation (EU) No 10/2011. (See end of Document for details)

#### CHAPTER 3

#### Testing for overall migration

Overall migration testing shall be performed under the standardised testing conditions set out in this chapter.

#### 3.1. Standardised testing conditions

The overall migration test for materials and articles intended for the food contact conditions described in column 3 of Table 3 shall be performed for the time specified and at the temperature specified in column 2. For test OM5 the test can be performed either for 2 hours at 100 °C (food simulant D2) or at reflux (food simulant A, B, C, D1) or for 1 hour at 121 °C. The food simulant shall be chosen in accordance with Annex III.

If it is found that carrying out the tests under the contact conditions specified in Table 3 causes physical or other changes in the test specimen which do not occur under worst foreseeable conditions of use of the material or article under examination, the migration tests shall be carried out under the worst foreseeable conditions of use in which these physical or other changes do not take place.

# [<sup>F13</sup>TABLE 3

Column 1	Column 2	Column 3
Test number	Contact time in days [d] or hours [h] at Contact temperature in [°C] for testing	Intended food contact conditions
OM0	30 min at 40 °C	Any food contact at cold or ambient temperatures and for a short duration ( $\leq 30$ minutes).
OM1	10 d at 20 °C	Any food contact at frozen and refrigerated conditions
OM2	10 d at 40 °C	Any long-term storage at room temperature or below, including when packaged under hot-fill conditions, and/or heating up to a temperature T where 70 °C $\leq T \leq 100$ °C for a maximum of t = 120/2^((T-70)/10) minutes.
OM3	2 h at 70 °C	Any food contact conditions that include hot-fill and/or heating up to a temperature T where 70 °C $\leq$ T $\leq$ 100 °C for maximum of t = 120/2^((T-70)/10) minutes, which are not followed by

#### Standardised conditions for testing the overall migration

		long-term room temperature or refrigerated storage.
OM4	1 h at 100 °C or at reflux	High temperature applications for all types of food at temperature up to 100 °C.
OM5	2 h at 100 °C or at reflux or alternatively 1 h at 121 °C	High temperature applications up to 121 °C.
OM6	4 h at 100 °C or at reflux	Any food contact conditions at a temperature exceeding 40 °C, and with foods for which point 4 of Annex III assigns simulants A, B, C or D1.
OM7	2 h at 175 °C	High temperature applications with fatty foods exceeding the conditions of OM5.

Test OM 7 covers also food contact conditions described for OM0, OM1, OM2, OM3, OM4, OM5. It represents the worst case conditions for fatty food simulants in contact with non-polyolefins. In case it is technically not feasible to perform OM 7 with food simulant D2 the test can be replaced as set out in paragraph 3.2.

Test OM 6 covers also food contact conditions described for OM0, OM1, OM2, OM3, OM4 and OM5. It represents worst case conditions for food simulants A, B and C in contact with non-polyolefins.

Test OM 5 covers also food contact conditions described for OM0, OM1, OM2, OM3, OM4. It represents the worst case conditions for all food simulants in contact with polyolefins.

Test OM 2 covers also food contact conditions described for OM0, OM1 and OM3.]

#### [<sup>F3</sup>3.2. Substitute overall migration tests for tests with food simulant D2

[<sup>F13</sup>If it is not technically feasible to perform one or more of the tests OM0 to OM6 in food simulant D2, migration tests shall be done using ethanol 95 % and isooctane. In addition a test shall be done using food simulant E in case the worst foreseeable conditions of use exceed 100 °C. The test that results in the highest overall migration shall be used to establish compliance with the Regulation.

In case it is technically not feasible to perform OM7 with food simulant D2, either test OM8 or test OM9 shall be selected as a replacement test by selecting the most appropriate of these two tests on the basis of the intended and the foreseeable use of the material or article that is being tested. Subsequently, a migration test shall be done at each of the two test conditions specified for the selected test, using a new test sample for each test condition. The test condition that results in the higher overall migration shall be used to establish compliance with the Regulation.]

Test number	Test conditions	Intended food contact conditions	Covers the intended food contact conditions described in
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OM8	Food simulant E for 2 hours at 175 °C and food simulant D2 for 2 hours at 100 °C	High temperature applications only	OM1, OM3, OM4, OM5 and OM6
OM9	Food simulant E for 2 hours at 175 °C and food simulant D2 for 10 days at 40 °C	High temperature applications including long term storage at room temperature	OM1, OM2, OM3, OM4, OM5 and OM6]

## [<sup>F3</sup>3.3. Verification of compliance

#### 3.3.1. Single use articles and materials

At the end of the prescribed contact time, to verify compliance the overall migration is analysed in the food simulant using an analytical method in accordance with the requirements of Article 11 of Regulation (EC) No 882/2004.

## [<sup>F13</sup>3.3.2. Repeated use articles and materials

The applicable overall migration test shall be carried out three times on a single sample using another portion of food simulant on each occasion. The migration shall be determined using an analytical method in accordance with the requirements of Article 34 of Regulation (EU) 2017/625 of the European Parliament and of the Council<sup>(21)</sup>. The overall migration in the second test shall be lower than in the first test, and the overall migration in the third test shall be lower than in the second test. Compliance with the overall migration limit shall be verified on the basis of the level of the overall migration found in the third test.

If it is not technically feasible to test the same sample three times, such as when testing in vegetable oil, the overall migration test can be carried out by testing different samples for three different periods of time lasting one, two and three times the applicable contact test time. The difference between the third and the second test results shall be considered to represent the overall migration. Compliance shall be verified on the basis of this difference, which shall not exceed the overall migration limit. In addition, the difference between the second and the first test results shall be lower than the first test results and the difference between the third and the second test results shall be lower than the difference between the second and the first test results.

By derogation from the first paragraph, if, on the basis of scientific evidence, it is established that for the material or article being tested the overall migration decreases in the second and third tests and if the overall migration limit is not exceeded in the first test, the first test alone shall be sufficient.]]

#### 3.4. Screening approaches

[<sup>F3</sup>To screen if a material or article complies with the migration limits, any of the following approaches can be applied which are considered at least as severe as the verification method described in Sections 3.1 and 3.2.]

#### 3.4.1. Residual content

To screen for overall migration the migration potential can be calculated based on the residual content of migratable substances determined in a complete extraction of the material or article.

#### [<sup>F3</sup>3.4.2. *Food simulant substitutes*

To screen for overall migration, food simulants can be replaced if based on scientific evidence the substitute food simulants result in migration that is at least as severe as migration that would be obtained using the food simulants specified in Annex III.]

#### CHAPTER 4

#### Correction factors applied when comparing migration test results with migration limits

4.1. Correction of specific migration in foods containing more than 20 % fat by the Fat Reduction Factor (FRF)

For lipophilic substances for which in Annex I it is indicated in column 7 that the FRF is applicable the specific migration can be corrected by the FRF. The FRF is determined according to the formula  $FRF = (g \text{ fat in food/kg of food})/200 = (\% \text{ fat } \times 5)/100.$ 

The FRF shall be applied according to the following rules.

The migration test results shall be divided by the FRF before comparing with the migration limits.

The correction by the FRF is not applicable in the following cases:

- (a) when the material or article is or is intended to be brought in contact with food intended for infants and young children as defined by Directives 2006/141/EC and 2006/125/ EC;
- (b) for materials and articles for which it is impracticable to estimate the relationship between the surface area and the quantity of food in contact therewith, for example due to their shape or use, and the migration is calculated using the conventional surface area/volume conversion factor of  $6 \text{ dm}^2/\text{kg}$ .

[<sup>F3</sup>The specific migration in food or food simulant shall not exceed 60 mg/kg food before application of the FRF.]

[<sup>F4</sup>When testing is performed in food simulant D2 or E and when the test results are corrected in application of the correction factor laid down in Table 2 of Annex III this correction may be applied in combination with the FRF by multiplying both factors. The combined correction factor shall not exceed 5, unless the correction factor laid down in Table 2 of Annex III exceeds 5.]

<sup>F15</sup>4.2. Correction of migration into food simulant D2

<sup>F15</sup>4.3. Combination of correction factors 4.1 and 4.2.

#### ANNEX VI

#### Correlation tables

Directive 2002/72/EC	This Regulation

Article 1(1)	Article 1
$\frac{\text{Article 1(1)}}{\text{Article 1(2)}}$	
Article 1(2), (3) and (4)	Article 2
Article 1a	Article 3
Article 3(1), Article 4(1) and Article 5	Article 5
Article 4(2), Article 4a(1) and (4), Article 4d, Annex II (2) and (3) and Annex III (2) and (3)	Article 6
Article 4a(3) and (6)	Article 7
Annex II (4) and Annex III (4)	Article 8
Article 3(1) and Article 4(1)	Article 9
Article 6	Article 10
Article 5a(1) and Annex I (8)	Article 11
Article 2	Article 12
Article 7a	Article 13
Article 9(1) and (2)	Article 15
Article 9(3)	Article 16
Article 7 and Annex I (5a)	Article 17
Article 8	Article 18
Annex II (3) and Annex III (3)	Article 19
Annex I, Annex II, Annex IV, Annex IVa, Annex V Part B, and Annex VI	Annex I
Annex II (2), Annex III (2) and Annex V, Part A	Annex II
Article 8(5) and Annex VIa	Annex IV
Annex I	Annex V
Directive 93/8/EEC	This Regulation
Article 1	Article 11
Article 1	Article 12
Article 1	Article 18
Annex	Annex III
Annex	Annex V
Directive 97/48/EC	This Regulation
Annex	Annex III
Annex	Annex V

- (1) OJ L 338, 13.11.2004, p. 4.
- (2) OJ L 220, 15.8.2002, p. 18.
- (**3**) OJ L 44, 15.2.1978, p. 15.
- (4) OJ L 135, 30.5.2009, p. 3.
- (5) OJ L 354, 31.12.2008, p. 16.
- (6) OJ L 354, 31.12.2008, p. 34.
- (7) OJ L 31, 1.2.2002, p. 1.
- (8) SCF opinion of 4 December 2002 on the introduction of a Fat (Consumption) Reduction Factor (FRF) in the estimation of the exposure to a migrant from food contact materials. http://ec.europa.eu/food/fs/sc/scf/out149\_en.pdf
- (9) Opinion of the Scientific Panel on Food Additives, Flavourings, Processing Aids and Materials in Contact with Food (AFC) on a request from the Commission related to the introduction of a Fat (consumption) Reduction Factor for infants and children, The EFSA Journal (2004) 103, 1-8.
- (**10**) OJ L 297, 23.10.1982, p. 26.
- (**11**) OJ L 213, 16.8.1980, p. 42.
- (12) OJ L 167, 24.6.1981, p. 6.
- (**13**) OJ L 165, 30.4.2004, p. 1.
- (14) OJ L 384, 29.12.2006, p. 75.
- (15) OJ L 401, 30.12.2006, p. 1.
- (**16**) OJ L 339, 6.12.2006, p. 16.
- (17) OJ L 353, 31.12.2008, p. 1.
- (18) OJ L 372, 31.12.1985, p. 14.
- (19) [<sup>F13</sup>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 (OJ L 396, 30.12.2006, p. 1).;]
- (20) [<sup>F3</sup>When testing at these accelerated test conditions the test specimen shall not undergo any physical or other changes compared to the real conditions of use, including a phase transition of the material.]
- (21) [<sup>F3</sup>[<sup>F13</sup>Regulation (EU) 2017/625 of the European Parliament and of the Council of 15 March 2017 on official controls and other official activities performed to ensure the application of food and feed law, rules on animal health and welfare, plant health and plant protection products, amending Regulations (EC) No 999/2001, (EC) No 396/2005, (EC) No 1069/2009, (EC) No 1107/2009, (EU) No 1151/2012, (EU) No 652/2014, (EU) 2016/429 and (EU) 2016/2031 of the European Parliament and of the Council, Council Regulations (EC) No 1/2005 and (EC) No 1099/2009 and Council Directives 98/58/EC, 1999/74/EC, 2007/43/EC, 2008/119/EC and 2008/120/EC, and repealing Regulations (EC) No 854/2004 and (EC) No 882/2004 of the European Parliament and of the Council Directives 89/608/EEC, 89/662/EEC, 90/425/EEC, 91/496/EEC, 96/23/EC, 96/93/EC and 97/78/EC and Council Decision 92/438/EEC (Official Controls Regulation) (OJ L 95, 7.4.2017, p. 1).]]

#### **Textual Amendments**

**F3** Substituted by Commission Regulation (EU) 2016/1416 of 24 August 2016 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).

**F13** Substituted by Commission Regulation (EU) 2020/1245 of 2 September 2020 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Text with EEA relevance).

## Status:

Point in time view as at 31/12/2020.

### Changes to legislation:

There are currently no known outstanding effects for the Commission Regulation (EU) No 10/2011.