

ECMA Food Safety Committee

Web-meeting 26 September 2024

Participants : Sigrid Gerold (Mayr Melnhof Packaging), Eliza Konecka-Matyjek (WestRock), Marjatta Punkka (Metsa Group), Paolo Minichini (Seda), Elaine Murray (WestRock), Carola Poggenpohl (Mayr Melnhof Packaging), Annika Schrimpf (Graphic Packaging), Caroline Seguin (Mayr Melnhof Packaging), Mike Turner (ECMA MD & Co-Chair FS Com), Jan Cardon (ECMA)

Apologized : Michael Avemarg (Van Genechten Packaging), Carmine Iuvone (SEDA & Co-Chair FS Com), Ashleigh Pyatt (Alexir Packaging), Christian Schiffers (FFI), Dorien van den Helm (Acket), Helena Moring Vepsalainen (Metsa Group),

1. Introduction - Welcome

ECMA anti-trust guidelines

SUMMARY DO NOT

- . **agree** in writing or in any other way on prices or pricing policy
- . agree to restrict any other commercial conditions
- . agree with competitors to divide territories or customers (market sharing)
- . **limit** or control production, technical development or investment
- . **discriminate** between customers or suppliers
- . discriminate in the rules for joining or leaving a trade association
- . **exchange** specific information with competitors on individual purchasing prices, cost price structure, sales quantities or other trading conditions
- . **Jointly restrict** the liberty of competitors to sell and promote products at independently determined prices and conditions.
- . restrict the possibilities of competitors to use a common quality label or enter into standardisation agreements with competitors that might make entry for new commerce in the market more difficult.

2. Harmonised testing conditions for cartons. Lionel Spack (Nestlé) joins the meeting for this agenda item (10h00-10h30).

ECMA STATEMENT ON TESTING CONDITIONS April 2024

This statement reviews ways to test the migration of cartons stored for a long term (> 6 months) at room temperature.

Recently, this topic, has been discussed at length within the ECMA Food Safety Committee and with the various experts from European associations representing the materials used by carton makers, including FEICA (Adhesives and Sealants Industry), EuPIA (Printing Ink Association) and CEPI (Confederation of Paper Industries) and, has also been raised with the Joint Research Centre, the Belgian public research institute Sciensano and in the Packaging Ink Joint Industry Task Force.

Appropriate testing, among other means of assessing compliance, is part of the process flow of producing food-safe cartons.

As described in early ECMA GMP documents, this testing can be efficiently performed for so-called packaging systems, combinations of a well-defined substrate, ink and adhesive for a particular type of application. Once such a specific combination has been thoroughly tested, the packaging system can be used safely for many customers.

The Plastics Regulation (EU) No 10/2011 does not apply to paper and cardboard packaging, but in view of the misconception among some customers and laboratories that cartons should anyway be tested according to the requirements for plastics, the existing publications from the authorities and the guidelines of industry associations were carefully reviewed.

The level of safety should be the same for all packaging materials, although the material's intended use, properties and migration behaviour may differ greatly.

For the vast majority of cartons with no plastic barrier coating, tests with liquid simulants are, for example, not representative of migration from cartons.

In principle, testing migration into the packed food itself prevails, but if a simulant is used, modified polyphenylene oxide (MPPO) is suitable for assessing migration from cartons.

A recently developed alternative method is testing into infant powder, which is used as a kind of worst-case migration-sensitive type of food.

Which conditions to use?

Based on the Plastics Regulation, as indicated, some customers tend to require for long-term storage at room temperature, testing for 10 days at 60°C.

Apart from the fact that this legislation is not applicable, those conditions are also not representative of the effective use of cartons. As specified in Annex V "Compliance Testing" of the Plastics Regulation, such test conditions "cover storage for more than 6 months at room temperature and below, including hot filling and/or heating up to 70-100°C for - varying with the temperature - 15 minutes (100 °C) to 2 hours (70°C)."

These higher temperature conditions (associated with, for example, the pasteurisation process and hot filling), do not occur in the processing of regular cartons.

As no specific harmonised EU legislation exists for paper and board articles, the only material specific authorities' reference is the Council of Europe Resolution CM/Res (2020) 9, and the Technical Guide on paper and board used in food contact materials and articles. [1]

In the section on "Conditions of testing" it is stated "The worst foreseeable conditions of contact of the test specimen (paper or board material or article) with food are to be chosen for testing".

The Council of Europe publication refers (out of the scope of this note) for contact with liquid foods or beverages to the JRC publication "Guidelines on testing conditions for articles in contact with foodstuffs (with a focus on kitchenware)" and provides guidance on the testing conditions for baking and microwave oven applications.

Aside the review of those official references, the ECMA Food Safety Committee has had discussions and exchanges with leading food safety experts from the European associations representing the suppliers of the FCM materials, carton makers are using and with experts involved in the Packaging Ink Joint Industry Taskforce.

In a meeting with FEICA, their publication "Migration testing of adhesives intended for food contact materials" (Version 10/05/2023) was discussed [2] and the section "Accelerated tests at elevated temperature" states, "for certain types of adhesive applications, a change of physical properties will take place at temperatures of 60 °C. The observed migration will in such cases be substantially different from the real long-term migration at room temperature or even at 40 °C. In these cases, the migration results obtained may not be valid."

This same observation related to the physical and chemical changes which may happen to the migrating compounds was also part of the discussion with EuPIA and is well covered in the "EuPIA Guidance on migration test methods for the evaluation of substances in printing inks and varnishes for food contact materials". (Version 03/05/2023)". [3]

The EuPIA publication contains in the section "Selecting migration parameters" a table with testing conditions based on the difference between dry and liquid/moist food, the contact time and the food contact temperature. For dry foods used below 40 °C, this table is indicating MPPO testing at 40 °C. for 10 days. Based on a recent EuPIA migration study conducted at Fraunhofer IVV, it has however been stated by experts from the ink industry, it may be appropriate to prolong the testing time to 30 days to compensate the lower testing temperature.

In fact, the derogation of testing at a lower temperature is also well included in the Plastics Regulation itself. Annex V paragraph 2.1.3 (l) contains the wording: "If it is found that carrying out the tests under the combination of contact conditions specified in the tables 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."

Based on these various publications and discussions, ECMA assumes that it is appropriate to perform compliance tests for regular cartons stored for a long term (> 6 months) at room temperature, at 40 °C. In accelerated tests a pragmatic approach may be, to test at this temperature for 30 days unless there is scientific evidence that the migration of the present substances reaches equilibration at a different testing time.

ECMA, the European Carton Makers Association

Contact: Mike Turner, Managing Director

[1] <https://freepub.edqm.eu/publications/PUBSD-115/detail>

[2] https://www.feica.eu/information-center/all-information-centre/preview/1214/feica-guidance-paper-2023-migration-testing-adhesives-intended-food-contact-materials?id=d2ea314b-3e4a-4cae-bd85-bbf5a44f3ddd&filename=GUP-EX-F03-010_v2+FEICA+Migration+testing+for+non-plastics.pdf

[3] <https://www.eupia.org/key-topics/food-contact-materials/migration-testing/>

Nestlé (Lionel Spack 16/05)

- Alarmed the cardboard industry many times in the past on discrepancies and strange behaviour, if plastic testing conditions are blindly applied.
- BFR 36 series of validation tests extremely obsolete.
- Need to invest in series of cardboard testing that could make sense.
- Work done by Laurence Castle about correction factors. Cardboard industry has never convinced the community about the trueness obtained with all corrections.

Harmonized and acknowledged testing conditions for cardboard and paper-based packaging are drastically missing.

22/05

- 10 days 40 °C sufficient ?
Steady state obtained ? Could be tested on several samples and published.
- With waxes on paper and board, 60 °C is fatal for the coating. Need to stay below the melting point of the wax 40°C or even 30 °C.

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- Rainer Brandsch estimated carton and paper behave like a poor PE (project Migratest). Estimation does not take into consideration degradation of coating or melting of waxes.
- Carton & paper do not behave exactly like polymers and the Arrhenius theory is not fully adequate. Arrhenius theory of diffusion allowed to estimate that 10 days 60 °C simulates 12 months at 25 °C. This is not 100 % applicable to carton & paper because diffusion is not the only driving force within carton & paper. There are many interactions with the open active side of cellulose and other natural substances.
- ECMA statement on testing conditions. Summarizes the first seeds for a more comprehensive document/guidance with several more examples of structures : printed or not, laminated or not, coated with wax or not ...

If ECMA or CEPI in collaboration with ISEGA or another research institute would like to launch a larger project on assessing more correctly the migration from cartons and paper, Nestlé will be interested to participate. Nestlé can provide some laboratory work with the regional laboratories and if allowance from Nestlé Institute of Packaging Sciences, maybe more fundamental investigations.

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Sander Koster (21/05)

- No ongoing projects on shelf lives above 1 year. Below 1 year already enough challenging.
- Limited study with 5 different fibre based materials (including 3 cartons) intended for fatty food contact.
Which simulant to use for wet and dry fatty food contact ? (Paper cups or chocolate applications)
Various simulants/conditions including 95% ethanol, isooctane and Tenax tested and also explored CEN 15519.

Nestlé did not manage to find generic conditions.

Ethanol solutions swell fiber based materials.
Leakage of migration cells, visible coloration of migration solution.
Big difference between the different samples tested and the simulant conditions applied.

Not able to conclude which conditions would be best.
Immersion in isooctane for 1 day at 20 °C seems best in terms of damage to the PB.
Comparing the results with Tenax 10 days @ 60 °C, migration observed in isooctane 10 times higher.

Still no conclusion on which conditions to use in routine testing for dry and wet fatty food contact. Some guidance (decision tree ?) from the carton sector is welcomed.

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“ Harmonised and acknowledged testing conditions for cardboard and paper based packaging are drastically missing.” (LS)

“ ECMA statement on testing conditions. Summarizes the first seeds for a more comprehensive document/guidance ...” (LS)

“ Nestlé did not manage to find generic conditions. No conclusion on which conditions to use in routine testing for dry and wet fatty food contact.” (SK)

JRC guidance



Food Serving Utensils for Cold/Ambient or Hot use	FSU/CAH1	Cup, Glass, Drinkware
	FSU/CAH2	Open flask, Carafe, Can, Jug
	FSU/CAH3	Bottle
	FSU/CAH4	Baby bottle, Teats
	FSU/CAH5	Tableware, Plate, Dishware, Serving stand
	FSU/CAH6	Food tray, Serving board, French fries box, Finger food bag, Snack box, Popcorn box
	FSU/CAH7	Thermos flask, Isothermic drinking beaker
Food Serving Implements for Cold/Ambient use	FSI/CA1	Ice cream scoop, Ice tongues, Ice cube tray
	FSI/CA2	Specific use Cutlery and wine accessories: Cheese knife, Cheese slicer, Grapefruit knife, Salad cutlery, Tomato knife, Oyster knife, Butter curler, Honey dipper, Bar pestle, Wine tester, Bottle pourer, Wine chiller
	FSI/CA3	Salt mill, Spice mill, Pepper mill, Herb mill, Salt shaker
Food Containers for Cold/Ambient or Hot use	FC/CAH1	Lunchbox, Takeaway box, Pizza box
	FC/CAH2	Container: Pasta container, Cheese cellar, Butter cellar, Can cover, Garlic/onion keeper, Egg to go box, Bread box, Biscuit box, Storage box, Bag/textile for storage, Foil (not for baking), Jar, Ice cream container



Table 5A - Migration test conditions for paper & board kitchenware

Main Class	Subclass	Use		Sample prep	Test type		Food/Food simulant	SM Conditions (only food simulants)		S/V		Notes
		cold (< 20 °C)	Room Temperature hot (> 40 °C)		actual use	article fill		immersion	time	Temp (°C)	Real	

Cold drink cups...	FSU/CA1	x	x		y	x	x	x	x	x	24 h	40	x	x	x	x	x		
	FSU/CA2																		
	FSU/CA3	x	x	@	y	x	x	x	x	x	10 d	40	x	x	x	x	x		
		x	x	≤ 6	y	x	x	x	x	x	10 d	50	x	x	x	x	x	[2]	
		x	x	> 6	y	x	x	x	x	x	10 d	60	x	x	x	x	x	[2]	
	Food Serving Utensils	FSU/CAH1	x	x		y	x	x	x	x	x	24 h	40	x	x	x	x	x	
			x	x		y	x	x	x	x	x	2 h	70	x	x	x	x	x	followed by 24 h at 40 °C, if used for storage
	FSU/CAH2																		
	FSU/CAH3																		
French fries ...	FSU/CAH4																		
	FSU/CAH5	x	x	x	y	x	x	x	x	x	2 h	70	x	x	x	x	x		
	FSU/CAH6	x	x	x	y	x	x	x	x	x	2 h	70	x	x	x	x	x		
	FSU/CAH7																		
		FSI/CA1																	
Food Serving Implements	FSI/CA2																		
	FSI/CA3	x	x	≤ 6	x	x	x	x	x	x	10 d	50	x	x	x	x	x	[2]	
		x	x	> 6	x	x	x	x	x	x	10 d	60	x	x	x	x	x	[2]	
	FSI/CAH1	x	x	x	x	x	x	x	x	x	2 h	70					x		
	FSI/CAH2																		
Take away, Pizza Food Containers Biscuit, Ice cream...	FC/CAH1	x	x	x	@	y	x	x	x	x	2 h	70	x	x	x	x	x	followed by 24 h at 40 °C, if use for storage [OM2]	
		x	x	x	@	y	x	x	x	x	10 d	40	x	x	x	x	x		
	FC/CAH2	x	x		@	y	x	x	x	x	10 d	5	x	x	x	x	x		
		x	x	≤ 6	y	x	x	x	x	x	10 d	40	x	x	x	x	x	[2]	
		x	x	> 6	y	x	x	x	x	x	10 d	60	x	x	x	x	x	[2]	

- * When no national legislation is available, national recommendations, or Council of Europe recommendations, or other relevant guidelines shall be taken into account for compliance assessment.
- [1] cf. Table 2 of Annex V
- [2] use (10d, 40°C) if equilibrium is reached [cf. Reg. 10/2011 Annex V, Chapter 2 § 2.1.4.e & Amendment 2016/1416]
- @: see Table: Rational
- "y": "migration cell" applies to "cut test specimen" only
- SM, OM: Specific migration, Overall Migration
- s/v: surface-to-volume ratio to calculate final migration result
- Food Simulants: A (Ethanol 10 % v/v); B (Acidic acid 3 % w/v); C (Ethanol 20 % v/v); D1 (Ethanol 50 % v/v); D2 (Vegetable oil); E (poly(2,6-diphenyl-p-phenylene oxide)) [cf. Reg. 10/2011 Annex III]

Rational for the selection of test time and temperature (Specific Migration)

time	temperature	Sub-class	Rational/justification
10 d	40 °C	FPU/CAH5 FPU/CAH8 FSU/CAH3-4 FSU/CA3 FSI/CAH2 FC/CAH1-2	According to Regulation 10/2011, - for utensils in contact with food for more than 30 days at refrigerated or frozen temperature, including hot-fill conditions and/or heating up to $70\text{ °C} \leq T \leq 100\text{ °C}$ for maximum $t = 120/2^{((T-70)/10)}$ minutes; - for utensils in contact with food for up to 30 days at room temperature.
10 d	50 °C	FSU/CA3 FSU/CAH3 FSI/CA3 FSI/CAH2 FC/CAH2	According to Regulation 10/2011, for utensils in contact with food for more than 30 days but less than 6 months at room temperature, including hot-fill conditions and/or heating up to $70\text{ °C} \leq T \leq 100\text{ °C}$ for maximum $t = 120/2^{((T-70)/10)}$ minutes, these test conditions apply.
10 d	60 °C	FSU/CA3 FSU/CAH3 FSI/CA3 FSI/CAH2 FC/CAH2	According to Regulation 10/2011, for utensils in contact with food for more than 6 months at room temperature, including hot-fill conditions and/or heating up to $70\text{ °C} \leq T \leq 100\text{ °C}$ for maximum $t = 120/2^{((T-70)/10)}$ minutes, these test conditions apply.

Required legal compliance in supplier questionnaires

Paper and board

General information

Name and address of the manufacturing plant :

Trade name / reference of the supplied paper/board :

Generic product description (Virgin fibre, Recycled board including partial, Barrier board, Water and oil repellent ...) :

Harmonised FCM legislation and paper specific regulations and guidance.

The supplier certifies that the provided board

(1) allows the converter - if used as recommended - to comply with the requirements set out in the Food Contact Framework Regulation (EC) No 1935/2004.

(2) is manufactured in accordance with the requirements set out in Regulation (EC) No 2023/2006.

(3) is compliant with the Council of Europe Resolution CM/Res (2020)9 on the safety and quality of materials and articles for contact with food and the Technical Guide on Paper and Board.

(4) complies with other specified legislations and recommendations. (Germany : BfR 36, France DGCCRF Fiche papiers et cartons - January 2019 , Dutch Warenwet Chapter 2, Italian Ministerial Decree 1973)

(5) is manufactured in accordance with the Food Contact Guidelines for compliance of paper & board materials and articles. (CEPI/CITPA)

Inks and varnishes

General information

Name and address of the manufacturing plant :

Trade name / reference of the supplied ink :

Type of printing ink according to the EuPIA classification : Conventional sheet-fed offset FCM ink, Oil based FCM varnish, UV-curing FCM ink or lacquer, Water-based FCM coating, appropriate inks for a direct physical touching contact (DFC inks). See updated "ECMA Statement on Direct Food Contact Inks" (June 2023) (www.ecma.org).

Harmonised FCM legislation and ink specific regulations and guidance.

The supplier certifies that the provided ink

(1) allows the converter - if used as recommended - to comply with the requirements set out in the Food Contact Framework Regulation (EC) No 1935/2004.

(2) is manufactured in accordance with the requirements set out in Regulation (EC) No 2023/2006.

(3) is compliant with the Council of Europe Resolution CM/Res (2020)9 on the safety and quality of materials and articles for contact with food.

(4) complies with other specified legislations. (German Printing Ink Ordinance November 2021, Swiss Ordinance 817.023.21, French AGECE law No 2020-105 and the French Mineral Oil Order May 2022)

(5) is manufactured in accordance with the EuPIA Good Manufacturing Practice (GMP) Printing inks for Food Contact Materials. (4th Version March 2016)

Adhesives

General information

Name and address of the manufacturing plant :

Trade name / reference of the supplied adhesive :

Type of adhesive (Reactive polyurethane, Dispersion based on vinyl acetate polymers (PVAc), Dispersion based on acrylic polymers and VAE copolymers, Hotmelt, Hotmelt PSA, ...)

Harmonised FCM legislation and adhesive specific regulations and guidance.

The supplier certifies that the provided adhesive

(1) allows the converter - if used as recommended - to comply with the requirements set out in the Food Contact Framework Regulation (EC) No 1935/2004.

(2) is manufactured in accordance with the requirements set out in Regulation (EC) No 2023/2006.

(3) is compliant with the Council of Europe Resolution CM/Res (2020)9 on the safety and quality of materials and articles for contact with food.

(4) complies with other specified legislations and official recommendations (BfR Recommendations 14/28/25, Dutch Warenwet, Italian Ministerial Decree 1973 as amended, Spanish Royal Decree n.847-2011, FDA CFR Title 21 175.105)

(5) is manufactured in accordance with the FEICA Guidance for a food contact status declaration for adhesives. (September 2014)

Plastics

General information

Name and address of the manufacturing plant :

Trade name / reference of the supplied plastic :

Polymer type (PE, PP, PA, ...):

Harmonised FCM legislation and national regulations.

The supplier certifies that the provided plastic intermediate material

(1) complies with the requirements set out in the Food Contact Framework Regulation (EC) No 1935/2004.

(2) is manufactured in accordance with the requirements set out in Regulation (EC) No 2023/2006.

(3) complies with the Plastics Regulation No 10/2011

(4) is manufactured in accordance with other specified legislations and official recommendations.

Suggested agenda

1. Introduction and welcome.
2. Harmonised testing conditions for cartons. Lionel Spack (Nestlé) joins the meeting for this agenda item (10h00-10h30).
3. Approval of the notes from the food safety committee 18/06 and from the 8/07 discussion.
4. Sector projects.
 - Harmonised testing conditions.
 - NIAS database initiative.
5. Tour de table on specific food safety concerns and developments.
6. Legal developments. (EU, Germany, France ...)
7. Review of ECMA food safety documents. (Checklist customers ...)
8. Update on sustainability related topics.
9. Miscellaneous.

3. Approval of the notes from the food safety committee 18/06 and the 8/07 discussion.

FS Com 18/06

Update on the bio assays screening methods to avoid genotoxicity in FCMs.

(BDS Peter Benish)

- Allows in a safety by design approach to compare and introduce safer FCM. (FDCA)
- How to define a reasonable utilization for cartons ?
Extracts from cellulose and starch-based materials trigger in vitro toxicity.

Approval minutes & Tour de table

Meeting EuPIA experts : 8/11

French MO measure : new note FC update 21/08

Legal library

LCA : <https://www.procarton.com/media-section/publications/>

GIO : check with suppliers

EUDR

Notifications

Outcome FERA visit

Development NIAS database.

Testing conditions for cartons in different applications

ILSI Guidance on NIAS

Review FCM legislation

European database for cartonboard and carton production, 2023

Report prepared by RISE Bioeconomy on behalf of Pro Carton
RISE Bioeconomy Report No: Not applicable

Restricted distribution until approved by Pro Carton

Amended 15th December 2023

Biogenic CO₂ uptake not covered.

		Recycled cartonboard	Virgin cartonboard	Carton conversion	Aggregated average board production and carton conversion
PRODUCT & REFERENCE FLOW	tonne net saleable product	1	1	1	1
EMISSIONS TO AIR					
Particulates, <2.5µm	kg/t	0.0136	0.0144	-	0.0094
Particulates, >2.5µm and <10µm	kg/t	0.00076	0.0211	-	0.0130
Particulates, >10µm	kg/t	0.0040	0.0102	-	0.0084
CO ₂ (fossil)	kg/t	354.5	177.4	16.9	325.7
CO ₂ (biomass)	kg/t	2.4	728.8	0.0	435.9
CO	kg/t	0.047	0.000	-	0.027
NO _x (as NO ₂)	kg/t	0.199	0.584	-	0.462
SO _x (as SO ₂)	kg/t	0.118	0.135	-	0.148
TRS (H ₂ S as S)	kg/t	n/a	n/a	-	n/a

Cradle-to-grave carbon footprint of cartons, kgCO₂e per tonne of cartons

	Fossil GHG emissions	Biogenic GHG emissions	GHG removals	Direct land-use	Total
2021	852kgCO ₂ e	1,014kgCO ₂ e	-1,626kgCO ₂ e	9kgCO ₂ e	249kgCO₂e

Publication March 2023

Discussion 08/07

Development NIAS database

Testing conditions

4. Sector projects.

Harmonised testing conditions.

Discussion

NIAS database initiative.

Outcome of the discussion 8/07:

- The initial idea to start with the currently obtained NIAS information from the suppliers is abandoned.
- ECMA will contact FEICA and EuPIA with the request to obtain NIAS lists for broad categories of used inks and adhesives.
- For the board substrate the NIAS initiative will be limited to virgin board.
- Missing information will be added based on the own knowledge of the FS Com ... members.
- An involvement of FERA is put on hold.

Van: Walter, Christof (Dr.) <Walter@vci.de>
Verzonden: Wednesday, 4 September 2024 13:04
Aan: Jan Cardon <jan.cardon@ecmabel.be>; Simoni, Michael <mike.simoni@sunchemical.com>
CC: Oechsle Werner <werner.oechsle@hubergroup.com>
Onderwerp: AW: NIAS Substances

Dear Jan,

As promised I'd like to get back to you on your questions.

As for the Fraunhofer study, I talked to Werner Oechsle, the chair of our Analytical Experts Working Group. We are currently putting together a small delegation of experts. Afterwards we could look for a date. If you also have a delegation you can send me the names and I would circulate a doodle with some potential dates, or we do it vice versa, whichever you prefer.

As for the NIAS list: We discussed this with our experts. Of course we fully understand where you and your members are coming from. However, we would like to highlight the following points:

- The Statement of Composition includes IAS as well as NIAS. Obviously, it is not detailed out for every substance, whether it is an IAS or NIAS, but all regulatory migrants are mentioned, hence the individual ECMA members should already have the relevant information they need. We will also discuss in our committees, how we can make this clearer in the Statement of Composition to avoid any misunderstandings.
- The information on migrants and especially NIAS is specific for the relevant ink and can hence only be provided BtoB. A compiled list on a trade association level would be of little use for ECMA or its members
- The kind and amount of NIAS is also of relevance with regard to competition. Companies may differentiate with regard to efforts in control of raw materials, analytical screening, toxicological assessment, and so on. The EuPIA guidelines are establishing a minimum standard, which helps in ensuring that printed FCM are safe, but of course individual member companies may choose to go beyond these concepts. This again makes a compiled list of little use and also makes it questionable, whether an association can provide such a list as it interferes with competition

Therefore, we do not think EuPIA could or should compile such a list. The information your members seek, should already be available to them and we believe that this kind of information exchange is best done BtoB and not an association level. Please let us know, if you see the need for any further discussion on this topic or have any additional questions

Best regards

Christof

Discussion

Other projects

Intellectual property on ordering platforms ? (2023)

Review existing food safety documents. (FS Com 13/12/23)

Legal library (FS Com 18/06/24)

5. Tour de table on specific food safety concerns and developments.

Document intended to provide insight based on currently available information for consideration and not specific advice

B: Hygiene and shelf life remain important aspects for packaging, while appearance dropped significantly overall

□ 10% reduction since 2020 ■ Ranked top 2 ■ Ranked lowest 2

Importance of different aspects of product **packaging**, % of respondents who indicated “extremely” or “very important”, Rank

	North America			Europe				Latam	Asia			
												2023 Global Avg. ¹
	USA	MEX	GBR	DEU	FRA	ITA	SWE	BRA	IND	CHN	JPN	
Hygiene and food safety	1	1	1	1	1	1	1	2	1	1	1	75% ▼ 2%
Shelf life	2	2	2	2	2	2	2	1	2	2	2	67% ▼ 2%
Information included on the label	5	4	4	6	3	3	4	3	3	3	3	57% ▲ 0%
Ease of use	3	5	3	5	4	6	6	4	4	5	4	55% ▼ 1%
Durability	4	6	6	3	5	4	3	6	5	6	6	54% ▼ 5%
Environmental impact	6	3	5	4	6	5	5	5	6	4	5	51% ▲ 0%
Appearance	7	7	7	7	7	7	7	7	7	7	7	35% ▼ 10%

Source: McKinsey Packaging Survey 2023

McKinsey & Company 8

RASFF Alerts 1/06-25/09

MOAH in food

Fats and oils 6 (5NL/1D)

Coffee / Coffee pads 3 (1B/2NL)

Chewing gum 1 (NL)

Palm Fat powder 1 (B)

Whole wheat crackers 1 (NL)

Herbs and spices 1 (NL)

MOSH & MOAH in food

Snacks 1 (PI)

Tea 1 (NL)








MOSH & MOAH FCM

Rice 2 (D/Swit)

Paper straws 1 (B)

Lead, phthalates and photoinitiators

Pizza boxes 1 (FR)

Ref. ↓ ↑	Category ↓ ↑	Type ↓ ↑	Subject ↓ ↑	Date ↓ ↑	Origin	Notifying ↓ ↑	Class. ↓ ↑	Decision ↓ ↑
2024.6276	Food contact materials	food	MOSH/MOAH in rice from India, via the Netherlands	16 AUG 2024		 Germany	information notification for follow-up	potentially serious
2024.6176	Food contact materials	food contact material	Lead, phtalates and photoiniators in pizza boxes from Türkiye	12 AUG 2024		 France	information notification for attention	serious
2024.5892	Cereals and bakery products	food	Mineral oil (MOAH) in whole wheat crackers from Germany	1 AUG 2024		 Netherlands	alert notification	serious
2024.5353	Cereals and bakery products	food	MOAH and MOSH in basmati rice from Pakistan (migration from packaging)	11 JUL 2024	---	 Switzerland	information notification for attention	serious

6. Legal developments. (EU, Germany, France ...)

EU

- Ban on PFHXA



1. Shall not, from 10 October 2026 be placed on the market, or used, in a concentration equal to or greater than 25 ppb for the sum of PFHxA and its salts, or 1 000 ppb for the sum of PFHxA-related substances, measured in homogeneous material, in the following:
 - (a) textiles, leather, furs and hides in clothing and related accessories for the general public;
 - (b) footwear for the general public;
 - (c) paper and cardboard used as food contact materials within the scope of Regulation (EC) No 1935/2004;
 - (d) mixtures for the general public;
 - (e) cosmetic products as defined in Article 2(1), point (a), of Regulation (EC) No 1223/2009.
7. By way of derogation from paragraph 1, that paragraph shall not apply to articles and mixtures which were placed on the market before 10 October 2026.

- Consultation definition sustainability in FCM
ECMA involvement in CITPA submission
- FAQ on MO in food (FC update 21/08)

Germany

Printing ink ordinance. Missing substances ?

France

French MO measure : new note FC update 21/08

7. Review of ECMA food safety documents. (Checklist customers ...)

Preliminary remarks

The European Regulation "EC/2023/2006 on good manufacturing practice for materials and articles intended to come into contact with food" requires from the original suppliers of materials & articles intended to come into contact with food that "starting materials shall be selected and comply with pre-established specifications that shall ensure compliance of the material or article with the rules applicable to it."

This means that it is the responsibility of the customer of the folding carton manufacturer from the food industry to formulate a specification for a material or article intended to come into contact with food.

This checklist may prove to be a valuable tool to help the customer in compiling the specification and the other information that is important to the folding carton manufacturer to evaluate the risks and to act as the basis for developing marketable packaging.

The checklist consists of a list of questions that should be answered in liaison with the customer.

Use the list of questions for initial orders or for orders involving a change in material.

The checklist is structured in such a way that it can also be forwarded directly to the customer at any time. The scope, depth and order of the questions can be adapted individually to the specific requirements of the folding carton manufacturer.

Note for the reader

This is the second version (V2.0) of the FFI checklist for materials & articles made from board that are intended to come into contact with food. For a use at European level, the checklist was adopted in the ECMA Technical Committee the 2 April 2015. Comments on the checklist and suggestions for improvements are very welcome.

Disclaimer

The FFI has done everything in its power to make sure that the information in this document is correct. FFI and ECMA do not assume any liability for business decisions that are taken on the basis of the contents of this document. Such decisions remain the sole responsibility of those who use the information.

Customer:

Vendor:

Article:

Customer contact:

1. Questions about the (food) product packaged

1.1 Details about the product packaged

1.1.1 The product has the following consistency when it is packaged:

- solid
- grated
- liquid
- pasty
- optional description:



Mass [g] or volume [dm³]:

1.1.2 The product packaged has the following properties (more than one answer is possible):

- dry (Moisture content < 10%)
- moist Water content in%:
- fatty Fat content in %:
- optional description:

1.1.3 Does the product have any other (chemical) properties? If so, which ones?
(e.g. sensitive to oxidation, acid/alkaline, sensitive to heat/cold ...)

1.2 Processing of the product packaged

1.2.1 Short-time

hot contact

fat contact

at the following temperature:

for what approximate time:

1.2.2 Is the product frozen?

Yes

No

1.2.3 Filling temperature:

1.2.4 Description / additional information about the filling/packaging or treatment process at the customer's site:

1.3 Analysis of the migration risk

Is the product protected directly against packaging influences (absolute or functional barrier, e.g. glass, aluminium foil > 8 µ)?

Yes

No

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- It is not known whether there is an absolute or functional barrier (=> obtain information from the customer / manufacturer if necessary)

=> If so, please give as precise a description as possible and/or provide an appropriate data leaflet:

1.3.1 Is a further inner pack / bag provided between the product packaged and the folding carton?

- Yes No

=> If so, please give as precise a description as possible:

1.3.2 Does the product packaged come into direct physical contact with the folding carton?

- Yes No

1.3.3 Is the (food) product packaged (generally) consumed entirely by the consumer after the pack has been opened or does some of the product remain in the pack after it has been opened?

- Yes No

In what form, additional information:

1.3.4 How long is the planned maximum storage time in months for the product packaged, according to the manufacturer's recommendation ("use by" date)?

2. Questions about how the pack is used by the consumer

2.1 Heating

2.1.1 Is the food heated up together with the packaging?

Yes No

=> If so, at what temperature / how many watts?

2.1.2 What heating process is used?

Microwave Oven

Combination Other:

2.1.3 How long is the heating period (in minutes)?

2.2 Campaigns for children

2.2.1 Will the pack include a toy for children too (e.g. promotion campaign)?

Yes No

2.2.2 Does the packaging itself act as a toy for children?

Yes No

2.2.3 Does the EU Toy Directive 2009/48/EC and/or CEN standard EN 71 ("Toy Safety") apply?

Yes No

Unknown

2.2.4 Do the materials need to be saliva-resistant?

Yes No

3. Questions about the legal background

3.1 Country of sale / legal regulations

3.1.1 Is the product / food being exported to countries outside the EU (different laws)?

- Yes No
 Switzerland Unknown

=> If so, which countries?

3.1.2 Is the food / product packaged subject to special legal regulations or are there any specific restrictions on the use of certain substances in connection with food?

- Yes No
 Unknown

=> If so, what are they?

3.2 Specifications / customer's requirements

3.2.1 Has a specification been provided by the customer ?

- Yes No

=> If not, obtain specifications or compile them and have them confirmed by the customer!

Comments:

3.2.2 Have they been checked, approved and confirmed by the parties as part of the contract?

- Yes No

=> If not, obtain specifications or compile them and have them confirmed by the customer!

Comments:

3.2.3 Does the customer have any directives / specifications about the production of the materials and articles that are intended to come into contact with food? (e.g. supplier's guide, quality expectations, ...)

- Yes No
 Unknown

=> If so, what are they?

4. Materials used / design

4.1 Materials used, palletisation, transport

4.1.1 Board: grade used (manufacturer, board designation / grammage):

- Virgin fibre Recovered fibre (including partial)
 Other Comments:

4.1.2 Inks: inks that the customer says can/must be used for the packaging:

- Low-migration Mineral oil-free (< 0.1 % acc. to the manufacturer's certificate)
 Conventional UV

Other:

4.1.3 Which printing process is used?

- Offset Gravure
 Flexo Other:

4.1.4 Lacquers: lacquers that the customer says can/must be used for the packaging:

- Low-migration Mineral oil-free (< 0.1 % acc. to the manufacturer's certificate)

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Conventional UV

Other:

4.1.5 Adhesives: adhesives that the customer says can/must be used for the packaging:

Dispersion Hotmelt

Low-migration Other:

4.1.6 Use of hot foil?

Yes No

Comments, to what extent:

4.1.7 Use of window / film?

Yes No

Product used:

Comments:

4.1.8 How is the packaging to be shipped on the pallet etc.?

Blanks on the pallet In cartons on the pallet

Other / description:

4.1.9 Shipping cartons

Standard product Special product

Other / description:

4.1.10 Further transport packaging

Shrink film Material:

Stretch film Material:

Other Material:

4.1.11 Any other special features of the materials used or other materials required or comments about the design

4.2 Pack design

4.2.1 Is the packaging printed on the inside?

Yes No

=> If so:

Overlacquered Description of the ink/lacquer:

4.2.2 Is the packaging lacquered on the back without printing on the inside?

Yes No

=> If so, description / lacquer:

4.2.3 In the case of project developments: have clearance certificates confirming the compliance of the materials chosen for the planned application with food legislation been obtained?

Yes No

Unknown Unknown

=> If the answer is "No" or "Unknown": which materials are not suitable for the planned application?

4.2.4 Photo of the product or design drawing (etc., if available):

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8. Update on sustainability related topics.

9. Miscellaneous.

*Thank you for your
attendance and contributions!*