



## Recycling and EU food contact legislation

**Rob Veraart**

Keller and Heckman LLP  
Avenue Louise 523  
1050 Brussels  
+32(2)645- 5083  
veraart@khlaw.com

[www.khlaw.com](http://www.khlaw.com)  
[www.packaginglaw.com](http://www.packaginglaw.com)  
[www.foodcontactmaterials.com](http://www.foodcontactmaterials.com)

Washington, D.C. • Brussels • San Francisco • Shanghai

## Who is Keller and Heckman?

- Founded in 1962
- Offices in Washington DC, San Francisco, Brussels and Shanghai
- Broad practice in the areas of regulatory law, litigation, and business transactions
- A pioneer in the use of interdisciplinary approaches to problem-solving
- In-house scientific staff that works closely with the firm's attorneys on matters of technical complexity
- Many of our attorneys also have experience with food and food packaging governmental agencies

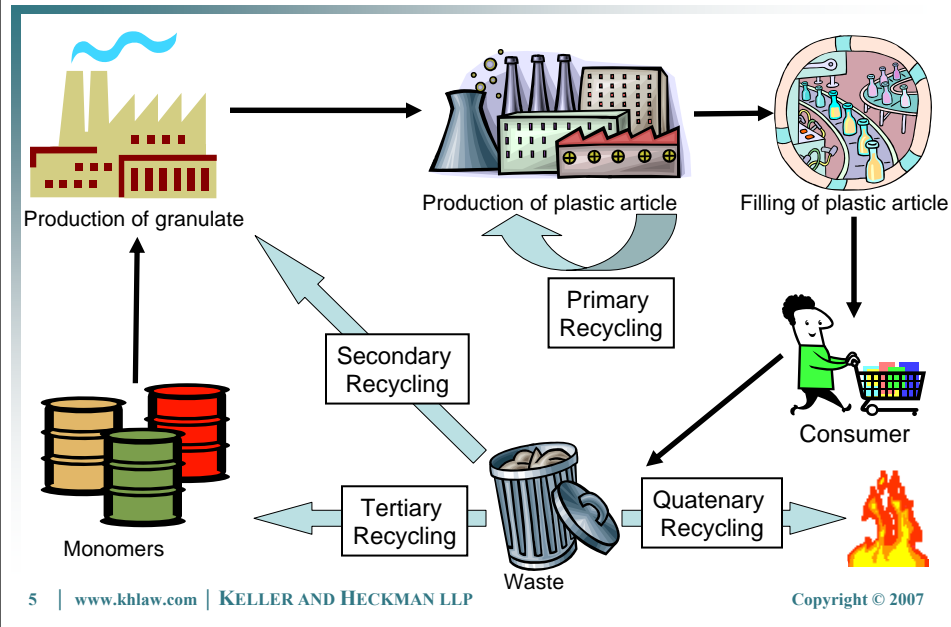
## Agenda

- Recycling of Plastic
  - Definition of recycle systems
  - Present situation
    - EU
    - Member states
  - Future situation
    - New EU legislation
    - New EU authorisation procedure
- Recycling of Paper
  - Present situation in the EU
  - Discussion of existing guidelines

## Recycling of Plastics



## Plastic recycling



## Recycling characteristics

Name	Source	Recycle technique
Primary recycling	in house scrap	Reuse polymer
Secondary recycling	post consumer	Mechanical cleaning
Tertiary recycling	post consumer	Chemical retention of monomer(s)
Quaternary recycling	post consumer	Energy recovery

## Present legislation

### Primary recycling

- EU, no specific regulation. Final article must comply with framework regulation and 2002/72/EC)
- National level, not regulated.

Generally accepted that this can be done, as long as final material complies with applicable requirements.

## Present legislation

### Secondary recycling

- EU, no specific regulation. Final article must comply with framework regulation and 2002/72/EC)
- Member states:
  - May be used, but a mandatory pre registration requirement exists (example Belgium)
  - May be used, but a 'voluntary' guideline exists (example France → **See presentation of Eric Barthelemy of AFSSA**)
  - May be used (example Germany)
  - May not be used (example Italy)

## Belgium (1)

- Mandatory registration
- Process is evaluated
- Technical dossier must be filed
- Applicable for all types of plastics
- Final product must comply with plastic measures + Framework Regulation
- Approval of use issued for 5 years, and is renewable after request in writing

## Belgium (2)

- Through August 2007, 9 processes have been authorized
- Dossier and evaluation report of evaluator is confidential. Opinion of scientific committee is public.

## Present legislation

### Tertiary recycling

- EU states that there is no need for registration, monomers and final article must comply with requirements of 2002/72/EC and Framework Regulation
- However, some member states (Belgium) have a pre-registration system
- However, some member states (France) have guidelines

## Future Legislation



### WARNING:

The following sheets contain information from draft legislation, the content may change before it is officially adopted !

## New EU Recycling Regulation

- Does apply to:
  - *Secondary recycling*
- Does **NOT** apply to:
  - Primary recycling
  - Tertiary recycling
  - Recycled plastics behind a barrier

} *may be used if in compliance with 2002/72/EC and framework regulation*
- Expected publication end 2007/beginning 2008
- Audits possible
- Labeling of the recycled content of final materials and articles is voluntary
- Guidelines for preparation of a technical dossier will be issued by EFSA 6 months after the publication of Regulation in the OJ

## EU requirements

- Input must be food compliant
- Processes authorized, not sites!
- Recycling process must be
  - validated using a challenge test *or* using a closed loop
  - authorised by EU
  - managed under quality system (EC) 2023/2006, which will be amended to include new requirements for recycled materials
- Final product must meet requirements of Plastics Directive and Framework Regulation

## EU recycling dossier

- The name and address of the applicant
- Name of the process
- Characterization of the input
- Description of the challenge test or closed loop system
- Characterization of the recycled material
- Description of any restrictions on the conditions of use for recycled material
- A summary of the dossier.

## EU technical dossier

- Name and address of the recycler
- Detailed description of the recycling process
- A risk analysis of the recycling process + critical points + measures taken to minimize and control the risk
- The food contact applications covered
- The specifications of the plastic output: plastic output intended for the manufacture of plastic materials and articles to be used in a specific food contact application should meet the requirements that are appropriate for this use
- Protocol and results of the challenge test performed

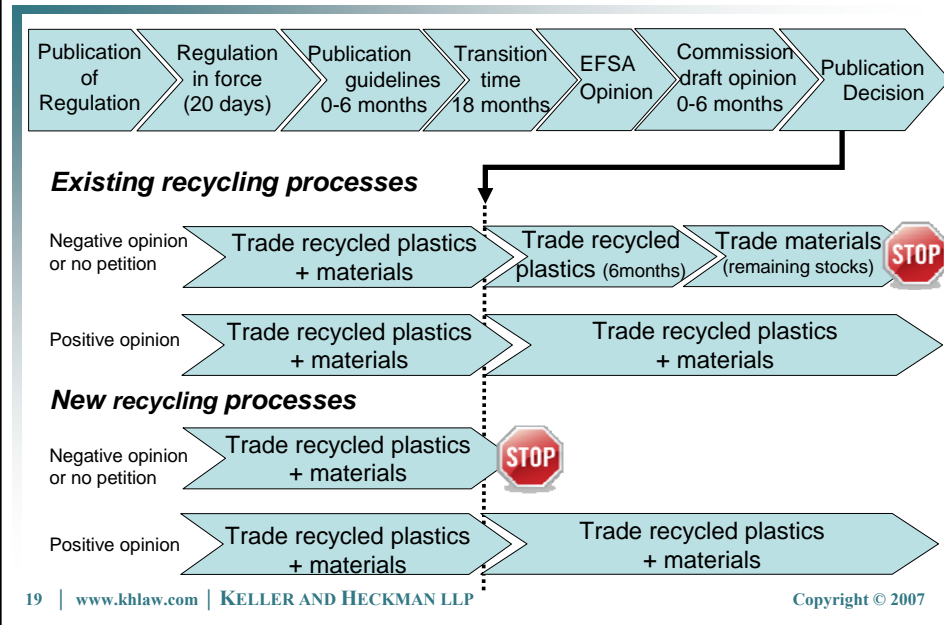
## EU challenge test

1. Plastic is contaminated with model contaminants representing potential polar/non-polar and volatile/non-volatile contaminants
2. Contaminated plastic run through recycling process
3. Decontamination effect determined and effect on potential migration calculated or migration determined

## EU decision published

- name of the recycling process
  - name and address of authorization holder
  - short description of the recycling process
  - date from which the authorization is effective
  - EC Register number of the authorized recycling process
- Data on plastic input*
- any conditions/restrictions concerning the plastic input
- Process*
- any conditions/restrictions concerning recycling process
- Recycled plastic*
- any criteria to characterize the recycled plastic
  - restrictions in the application (final product, food type, contact conditions)
  - any requirements concerning monitoring the compliance of the recycling process with the conditions of the authorization

## EU timing



## EU confidentiality

- Information may be marked as confidential (must be verifiable justification)
- The following information cannot be considered confidential:
  - the name/address of the applicant
  - the name of recycling process
  - information of direct relevance to the safety assessment
  - the analytical methods
- The Commission shall determine which information should be kept confidential (applicant will be informed)
- In case of a withdrawn application, all information indicated by applicant as confidential shall be treated as confidential
- The Authority shall supply the Commission and the Member States with all information in its possession on request.
- If circumstances require in order to protect human health, information can be made public

## Declaration of compliance

(in addition to requirements of art. 9 of 2002/72/EC)

### Plastic materials and articles

- A declaration that only recycled plastic from an authorized recycling process has been used listing the EC Register number of the authorized recycling process.

### Recycled plastic

- The declaration that the recycling process has been authorized listing the EC Register number of the authorized recycling process
- The declaration that the plastic input, the recycling process and the recycled plastic meet the specifications for which the authorization has been given.
- The declaration that a quality assurance system according to Annex Point B to Regulation 2023/2006 is in place (new).

## EU plastic conclusions

### Present status

- The legal status of use of recycled plastic differs from EU member state to EU member state
- In many EU member states only compliance with Framework Regulation is required

### Future developments

- A new EU Regulation will be published soon
- Secondary recycling processes must be authorized, requiring the submission of a petition
- Primary and tertiary recycling excluded, but must be safe
- Recycled material behind a barrier excluded; but must comply with requirements described in 2002/72/EC

# Recycling of Paper



23 | [www.khlaw.com](http://www.khlaw.com) | KELLER AND HECKMAN LLP

Copyright © 2007

## Legislative status in EU

- No harmonized legislation on paper and recycling of paper exists in the EU
- Framework Regulation does apply => final article must be safe
- Safety can be demonstrated using guidance documents or other legislation (FDA)

24 | [www.khlaw.com](http://www.khlaw.com) | KELLER AND HECKMAN LLP

Copyright © 2007

## Situation in member states

- Some countries do not have legislation on paper and the use of recycled paper (example UK)
- Some countries do have legislation on paper and allow the use recycled paper without additional legislation (example NL)
- Some countries do have guidelines specific to recycled paper (example France and Germany)

## Germany

- BfR guidelines on paper (chapter XXXVI)
- Recycled paper may be used for production of food contact paper.
- Final article must comply with BfR guidelines
- Restrictions on the input of the recycling process are mentioned. The restrictions depend on the food type that will be in contact with the paper.
- The transfer of diisopropylnaphthalene (DIPN) should be avoided. Migration can be expected to foodstuffs with free fat on the surface or with a large surface/volume ratio. DIPN is used as a solvent in carbonless copy paper.

## France

- Documentation demonstrating safety must be made available to authorities on request
- Guidelines issued on demonstrating safety:
  - Does cover household kitchen paper and table napkins
  - Recycled materials can be used if they meet the relevant GMP requirements for the manufacturing food contact paper, **see presentation of Noël Mangin of Club MCAS**
  - Purity criteria depending on food type (dry foods, aqueous or fatty foods, cooking, and hot filtering)
  - Some components are subject to a residual limit or a specific migration limit

## France, example

Excerpt from the French guidelines on establishing the safety of recycling of paper

	Purity requirements	Acceptability limits
Dry foods	Transfer of antimicrobial agents	Absence of inhibition zone
	Organoleptic inertia	Absence of alteration in taste or smell of foods
	PCP content	≤ 0.1 mg/kg of paper
	PCB content	≤ 2 mg/kg of paper
	Dosing of additive based on Formaldehyde, glyoxal or others.	Formaldehyde ≤ 1 mg/dm <sup>2</sup> Glyoxal ≤ 1.5 mg/dm <sup>2</sup> Others: maximum doses of use conform to the Guide to Good Practices

## Council of Europe (CoE)

- CoE is an intergovernmental body of EU and non-EU countries
- CoE has issued a resolution regarding paper intended to come into contact with food (Res 2002/1)
- Technical document No. 3 deals with the use of recycled fibers
- Non-binding paper

## CoE, recycling paper basics

- Safety assurance should take into consideration:
  - Source of recovered paper
  - Technology used to remove contaminants
  - Intended use of the paper
- GMP is required

## CoE, recovered paper sources

Group 1	Food contact paper
Group 2	Non-food contact paper, with little contamination Example: white paper from offices
Group 3	Non-food contact paper, with little contamination Example: corrugated board, unsorted white and colored printing paper from offices
Unsuitable sources	Heavily contaminated paper Example: old archives (PCBs), used hygienic paper

## CoE, food types classification

Type I	Aqueous and/or fatty food types Examples: beverages, fresh fish, pizzas, applications above room temperature (oven, microwave)
Type II	Dry, non-fatty food types Examples: bread, sugar, tea, spices
Type III	Foodstuffs which are shelled or peeled or washed Examples: fruits, nuts, vegetables

## CoE, decontamination processes

- Mechanical cleaning, by using repulping, deflaking
- Washing
- De-inking by washing or flotation
- Thermal treatment
- Chemical treatment, example bleaching

## CoE, guidance

- Depending on which food type and paper group guidance is provided on:
- which contaminants must be determined
  - migration limit for contaminants
  - which decontamination process must be used

## CoE, example

Excerpt from the CoE technical document No. 3 to the (2002)1

Food type (Chapter 4)	Recovered paper group (Chapter 3)	Process technologies (Chapter 5) (other processes or combinations of processes may be used provided that the end-product fulfils the requirements of Chapter 6)	Additional end-product requirements (Chapter 6) (tests should be carried out for other toxic substances whenever there are grounds to suspect their presence in the end-product)
Food type I Aqueous and/or fatty foodstuffs (including defrosted)	Group 1: Paper and board manufactured with substances listed in Technical document No. 1	Mechanical cleaning	The requirements of Table 2 of the Guidelines do not apply
	Group 2: Paper and board manufactured with substances not listed in Technical document No. 1, unprinted or lightly printed or lightly coloured	Mechanical cleaning Washing Chemical treatment, unless it is not necessary Thermal treatment, unless it is not necessary	Michler's ketone, DEAB, DIPNs, HTTP, Phthalates, Solvents, Azo colourants, FWAs, Aromatic amines, Polycyclic aromatic hydro-carbons, Benzophenone

## EU paper conclusions

- No EU harmonized legislation exists for recycled paper
- Recycled paper must comply with Framework Regulation
- Guidelines do exist on national level and are also provided by the Council of Europe
- Requirements in guidelines depend on recycled paper source, decontamination process(es) and food contact application.
- GMP is an important item



## Thank you!

**Rob Veraart**  
Keller and Heckman LLP  
Avenue Louise 523  
1050 Brussels  
+32(2)645- 5083  
veraart@khlaw.com

[www.khlaw.com](http://www.khlaw.com)  
[www.packaginglaw.com](http://www.packaginglaw.com)  
[www.foodcontactmaterials.com](http://www.foodcontactmaterials.com)

---

Washington, D.C. • Brussels • San Francisco • Shanghai