

Suitability assessment food packaging materials

May 2022

Food packaging materials may not pose a health risk to consumers. The producer of the packaging material must demonstrate that the material is safe for the intended use and meets the legal requirements. The buyer of the packaging material must assess whether the material is appropriate for the use and the food to be packaged. But how to do so and were to think of?

In order to assess the suitability of the packaging, the KIDV has drawn up this document as a tool to collect information about the food and the packaging material in two steps.

Step 1: Gather information about the food and packaging material.

Step 2: Assess whether the packaging material is suitable for the intended use.

Step 1 – Gather information

| Food properties | |
|----------------------------------------------------------------------|-------|
| Section | Data |
| Food that comes into direct contact with packaging material: | _____ |
| Food type: <i>See Regulation (EU) 10/2011 Annex III, Table 2.</i> | _____ |
| Food properties: | |



| | |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <input type="checkbox"/> Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Aqueous <input type="checkbox"/> Alcoholic (alcohol content ___ %) |
| | <input type="checkbox"/> pH < 4,5 <input type="checkbox"/> pH ≥ 4,5 |
| Contact time with packaging material: | _____ minutes/days |
| Contact temperature during use packaging material: | Storage _____ °C Preparation _____ °C |
| Contact between food and packaging material: | _____ mg food per contact surface (mg/dm ²) |

| Packaging material properties | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Section | Data |
| Collect (if available) the following documentation: | <input type="checkbox"/> Declaration of Conformity / Declaration of Compliance <i>(Not a legal obligation for all materials)</i> <input type="checkbox"/> Specification <input type="checkbox"/> Migration tests (producer is not legally obliged to hand over migration tests) |
| Type of material: <i>If packaging materials consist of multiple material types (for example, a glass jar with a metal lid), ensure that all materials are included in the assessment.</i> | 1: _____ 2: _____ 3: _____ 4: _____ 5: _____ |
| Single or multi-layer material: | <input type="checkbox"/> Single layer |

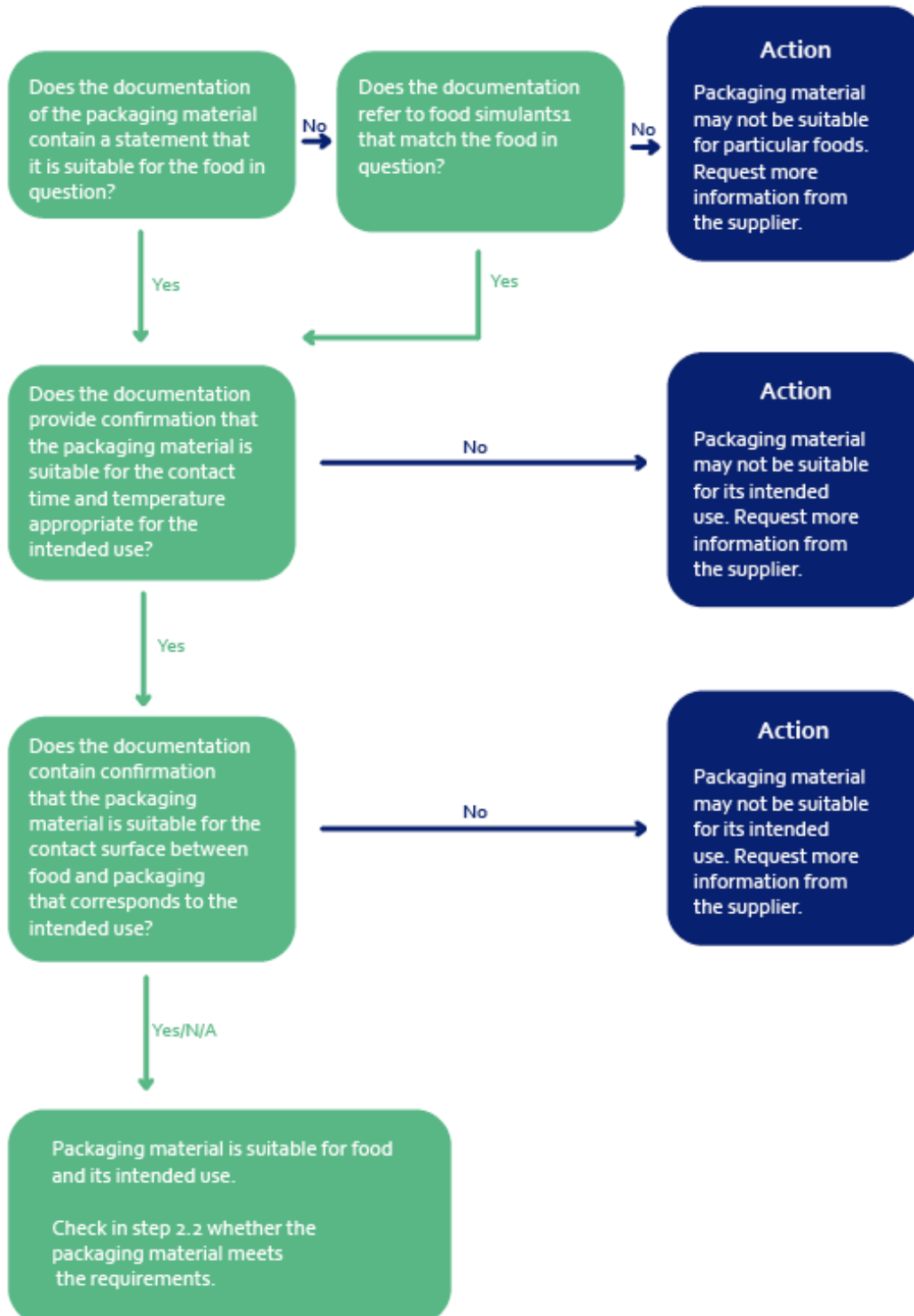
| | |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| | <input type="checkbox"/> multi-layered, namely: _____ |
| Recycled materials present: | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Applicable Packaging Material Legislation <i>See the 'Guidance in food packaging materials legislation'.</i> | _____ |

Step 2 – Assessment of food packaging materials

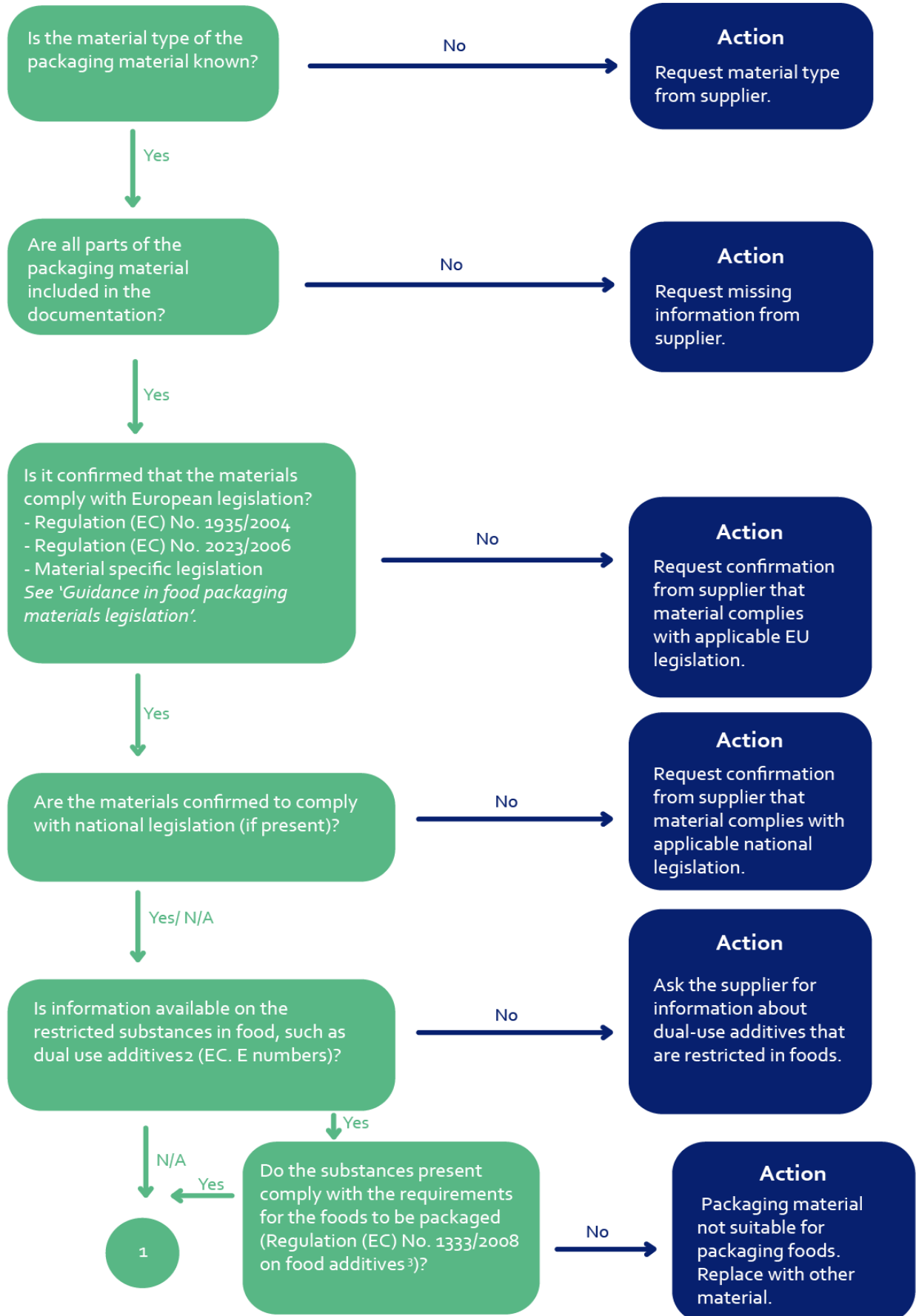
Use the decision tree in step 2.1 to assess whether the packaging material is suitable for the food and intended use. Then assess in step 2.2 whether the packaging material meets the requirements. To do this, use the information collected in step 1.

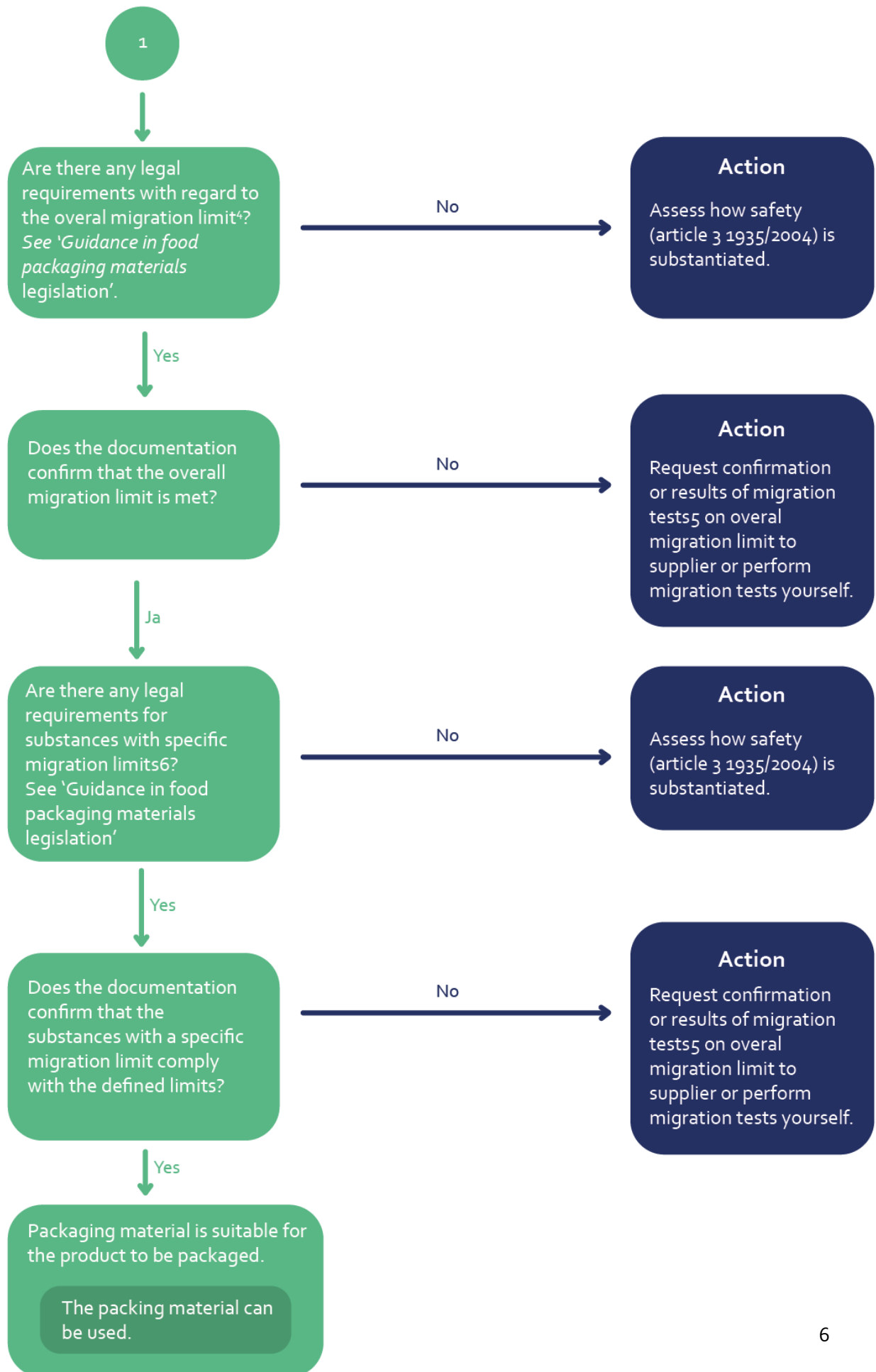
Go through the questions in the diagram below. When ending up in the orange column read what action is possible to properly assess the suitability of the packaging for the food in question. If the information is not complete, it cannot be determined that the packaging material is suitable and then it cannot be used. A different packaging is then needed.

2.1 Food suitability and intended use



2.2 Does packaging material meet the requirements?





3. Terms of Glossary

1. Food Simulants

A test medium imitating food; in its behaviour the food simulant mimics migration from food contact materials; ¹ Regulation (EU) No. 10/2011 of the European Commission of 14 January 2011 on plastic materials and articles intended to come into contact with food.

2. Dual use additives

Dual use additives are additives used in food packaging materials and which are also authorized as food additives. ² Union Guidelines on Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food. 21-02-2014.

3. Food Additives

A substance that is not usually consumed as a food or added as an ingredient on its own. The substance is added to the food for technological purposes, such as E numbers. Restrictions may apply to the substances in combination with certain foods, as included in Regulation (EC) No. 1333/2008. ³ Regulation (EC) No. 1333/2008 of the European Parliament and the European Council of 16 December 2008.

4. Overall Migration Limit (OML)

The release of components of the packaging material into foods is called migration. The amount that is allowed to migrate from the material to the food is determined in migration limits that are included in the legislation. OML means the maximum permitted amount of non-volatile substances released from a material or article into food simulants. ⁴ Union Guidelines on Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food. 21-02-2014.

5. Migration Testing

Analyses performed to determine the release and migration of substances from the packaging material to food or food simulant. ⁵ Union Guidelines on Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food. 21-02-2014.

6. Specific migration limits

The specific migration limit concerns the maximum permitted amount of a given substance released from a material or article into food or food simulants. ⁶ Union Guidelines on Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food. 21-02-2014.

KIDV fact sheets Food Safety

This fact sheet is part of a series of KIDV fact sheets on food safety. There are fact sheets on the following subjects:

- Mineral oils in packaging materials
- Bisphenol A in packaging materials
- Microplastics in packaging materials
- Heavy metals in packaging materials
- NIAS – Not-intentionally added substances
- Legislation on food contact materials

See also our [dossier page on Food Safety](#) on the KIDV website.