

# General Notice

## Use of an aluminium component in rigid HDPE packaging

The aim of this General Notice is to determine the impact of an aluminium component associated with rigid HDPE packaging on the HDPE recycling stream. It concerns both:

- HDPE bottles and containers (seal, lid, hidden part in product dispensing system, etc.),
- pots, trays, tubes and other rigid HDPE packaging (roll-on ball, barrier, seal, etc.).

COTREP states that this notice does not concern:

- aluminium elements in flexible HDPE packaging and films.
- inks and aluminium pigments that will be the subject of a specific General Notice.

With the current state of recycling equipment and techniques used and available in Europe, **the presence of aluminium significantly disrupts HDPE packaging recycling.**

**COTREP strongly advises against using this type of element in rigid HDPE packaging and recommends a study on alternative elements that take into account the compatibility of materials with one another.** It advises manufacturers to make it easier for consumers to separate elements containing aluminium from the packaging body, particularly by working on seals with tabs or plastic/aluminium blend seals that are impossible to pierce.

## SORTING AND RECYCLING POTENTIAL













Although some aluminium elements are designed to be removed by the consumer when the product is used, the risk of finding these elements or pieces of these elements on the packaging when it arrives at the sorting centre and/or recycler needs to be analysed on a case-by-case basis, and measures need to be taken to minimise this risk.

At the sorting centre, most HDPE packaging items with an aluminium component will be channelled to HDPE recycling streams, and will disrupt recycling of the latter.

According to the quantities of aluminium in the packaging and the sorting centre settings, some packaging will be channelled to the aluminium recycling stream, where the HDPE will not be recycled.

The table below shows the impact of aluminium elements at the HDPE reprocessing plant.

Summary table of impacts on reprocessing

Recycling stage	Impact	Description	Consequences
 Tri sur emballages		1 aluminium element detected → <b>Up to 5 aluminium-free HDPE packaging items ejected</b>	Increase in losses → <b>Loss of material, increase in waste to be processed</b>
 Prélavage	∅		
 Broyage	∅		
 Flottaison		One aluminium particle stuck to an HDPE flake → <b>The aluminium remains in the HDPE stream</b>	HDPE stream pollution
	∅	One loose aluminium particle → <b>Separation by flotation</b>	Increase in losses → <b>Loss of material, increase in waste to be processed</b>
 Lavage	∅		
 Tri sur palettes <i>(optional)</i>		1 aluminium flake detected → <b>Up to 1,000 HDPE flakes ejected</b>	Increase in losses → <b>Increase in waste to be processed</b>
 Granulation <i>(optional)</i>  Recyclage		Presence of aluminium flakes: → <b>Clogging of filters</b> → <b>Clogging of the die</b> → <b>Faults in appearance</b> → <b>Holes, etc.</b>	Disruption of the process: → <b>Increase in machine stoppages</b>  Quality defect: → <b>Loss of material, increase in waste to be processed</b>

 : Caution

∅: No impact → **Environmental and economic consequences**