Chemical compatibility for plastics packaging containing liquid waste

Transmitted by the European Federation of Waste Management and Environmental Services (FEAD)* **

Summary

Executive summary: This document considers the need to introduce rules for plastics packagings of liquid waste when the exact composition of such waste is not known.

Action to be taken: Introduce a new paragraph under 4.1.1.21.7.

Introduction

1. As determined by 4.1.1.21.1, for polyethylene packagings as specified in 6.1.5.2.6, and for polyethylene intermediate bulk containers (IBCs) as specified in 6.5.6.3.5, the chemical compatibility with filling substances may be verified by assimilation to standard liquids following the procedures, as set out in 4.1.1.21.3 to 4.1.1.21.5 and using the list in table 4.1.1.21.6, provided that the particular design types have been tested with these standard liquids in accordance with 6.1.5 or 6.5.6, taking into account 6.1.6 and that the conditions in 4.1.1.21.2 are met.

2. When assimilation in accordance with this sub-section is not possible, the chemical compatibility needs to be verified by design type testing in accordance with 6.1.5.2.5 or by laboratory tests in accordance with 6.1.5.2.7 for packagings, and in accordance with 6.5.6.3.3 or 6.5.6.3.6 for IBCs, respectively.

* A/77/6 (Sect.20), para. 20.76
** Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2023/19.
3. The rule for collective entries (figure 4.1.1.21.2) requires the exact composition of the dangerous goods. In most cases, it leads to a declaration of “further testing required” because a lot of chemical compounds are not linked to a standard liquid. This is especially relevant for waste as the composition may not be exactly defined and could vary from day to day in function of the corresponding production process (e.g. liquid waste generated by laboratory analysis, used solvents generated by mechanical processes or cleaning activities, etc.).

4. “Further testing” means e.g. the dangerous goods has to be stored at room temperature for six months or on test pieces for three weeks under conditions. From a practical point of view, such process cannot be applied to each batch of generated waste, nor does it allow an efficient waste management.

5. To ensure the highest level of safety possible, we propose that the material of the packaging has been tested with all the six standard liquids for the verification of the chemical compatibility of plastic packaging, and that the packaging itself conforms to the packaging group I performance level.

Proposal

6. Following discussions within the informal working group on the Transport of Hazardous Waste at the meeting held on 15 and 16 June 2022 in The Hague (and online), FEAD suggests adding:

Under 4.1.1.21.7 the following paragraph:

“Liquid waste classified under 2.1.3.5.5 shall be filled into plastic packaging only provided that the packaging material passes the tests with all the six standard liquids described in 6.1.6.1. Packaging shall conform to the packing group I performance level.”

Justification

7. This proposal clarifies the situation faced in waste management and does not increase the current risk level.