Chemical compatibility for plastic packaging containing liquid waste

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

Introduction

1. As determined by paragraph 4.1.1.21.1, for polyethylene packagings as specified in 6.1.5.2.6, and for polyethylene 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.

3. The rule for collective entries (figure ADR 4.1.1.21.2) requires the exact composition of the dangerous goods. In most cases, it leads to a declaration of “further testing requested” 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 6 months or on test pieces for 3 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.

Proposal

5. In agreement with 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 4.1.1.22 the following paragraph:

“In the case of liquid waste classified under 2.1.3.5.5 the use of plastic packaging tested with all the six standard liquids is allowed. The packaging shall follow the testing procedure for packing group I[AAH1].”

The six standard liquids are:
- Water
- Nitric acid 55%;
- Wetting solution;
- Acetic acid;
- Mixture of hydrocarbons;
- N-butyl acetate – n-butyl acetate-saturated wetting solution.