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Item 5 (a) of the provisional agenda

Proposals for amendments to RID/ADR/ADN pending issues

Carriage of polymerizing substances as waste – Revision of ECE/TRANS/WP.15/AC.1/2020/51

Transmitted by the Government of Germany^{*}, ^{**}, ^{***}

Revision

Introduction

1. A key aspect in the carriage of polymerizing substances is sufficient stabilisation by means of chemical stabilisation or temperature control or by a combination of both. This presupposes that the Self-Accelerating Polymerization Temperature (SAPT) is determined in relation to the packages, as a SAPT below 50 °C (packagings) or 45 °C (tanks) requires the application of temperature control provisions. On the basis of the SAPT, the control and emergency temperatures have to be determined for this purpose and have to be indicated in the transport document, see ADR 5.4.1.2.3.1. When chemical stabilization is employed, it must be ensured that the level of chemical stabilization is sufficient to prevent dangerous polymerization of the substance, including at a mean loading temperature of 50 °C or 45 °C. In this case, different factors are to be taken into account, for example the duration of transport or the effectiveness and properties of the stabilizer. This information is in particular available from the manufacturer of such substances, i.e. at the beginning of the transport chain. The consignor has to make sure of the classification and provide the data required for the transport document.

2. A large amount of polymerizing substances is also carried as waste. Here, the information required for complying with the provisions is often not available. Usually, the substances to be transported are not new products to be placed on the market, but substances

^{*} A/75/6 (Sect.20), para 20.51.

^{**} Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2021/2.

^{***} This document was scheduled for publication after the standard publication date owing to circumstances beyond the submitter's control.

to be disposed of because their properties have changed, because the substance has been stored for too long or because a partial polymerization has already taken place.

The evaluation of these wastes results in the following difficulties:

- (a) the wastes come from waste producers that (no longer) have information on the substance (e.g. from closed down businesses, site clearings, insolvency estates);
- (b) changes in the chemical composition cannot be ascertained;
- (c) the effectiveness of a potential stabilizer cannot be ascertained, except that there are no measurable reactions or physical changes;
- (d) emergency and control temperatures are unknown;
- (e) safety data sheets are not available; and/or
- (f) the wastes are stored in containers that are no longer permissible.

3. However, without more information, it cannot simply be assumed that there is sufficient chemical stabilization. In addition, without knowledge of the SAPT and the control and emergency temperatures derived from it, it is not possible to comply with the temperature control provisions described in ADR 7.1.7.3 and 7.1.7.4.

4. Therefore, discussions have been held with the waste disposal sector on approaches for ensuring that also for the transport of wastes, dangerous polymerization cannot take place during transport to the disposal facility.

5. There must always be consideration of the individual case, including actually available information on the substance, type and size of the containment as well as the circumstances under which the transport operation is effected. As a first step, a possible solution for the transport of polymerizing substances in packages was considered.

6. Germany submitted a corresponding proposal on this to the Joint Meeting in March 2019 (document OTIF/RID/RC/2019/8 – ECE/TRANS/WP.15/AC.1/2019/8), the aim of which was to allow exceptions to the information in the transport document and the specific temperature control measures, for which the SAPT and chemical stabilization need to be known. The document was referred to the informal working group on the carriage of dangerous wastes led by the European Federation of Waste Management and Environmental Services (FEAD) (see also report OTIF/RID/RC/2019-A – ECE/TRANS/WP.15/AC.1/154, paragraph 35) and was discussed at the second session of the informal working group on 3 and 4 March 2020. As a result of the discussion, Germany submitted document ECE/TRANS/WP.15/AC.1/2020/51 to the Joint Meeting in September 2020. Most delegates who took the floor supported in principle the proposed introduction of a new special provision to enable polymerizing substances to be carried as waste. However, some felt it necessary to indicate which of the listed measures were mandatory or optional. Others preferred more detailed specifications.

7. The proposal was reviewed again during two sessions of the informal working group on the carriage of dangerous wastes in October and November 2020. It was discussed whether it is possible to further specify the criterion “no significant deviation between the outside temperature of the package and the ambient temperature”, but the proposed wording describes exactly what is required: The surface temperature of the outer packaging should be equal to the ambient temperature, only small differences resulting obviously from a time delay in temperature equalisation are acceptable. Another point of discussion was the proposed time limit for the transport operations. It was noted that there might also be longer transport operations which cannot be finished within 24 hours as required by the proposed new special provision. Nevertheless, the authors of this proposal decided not to extend this period. The 24 hour period is a simple method to reduce the risks of such transport operations which can easily be applied. If transport operations take more time, it might be necessary to apply additional safety measures, e.g. temperature control.

Proposal

8. In order to enable polymerizing substances to be carried as waste in accordance with the regulations, an appropriate legal basis for special procedures for such carriage should be

established. As a rule, the requirements of special provision 386 – in ADR in conjunction with 7.1.7.3 and 7.1.7.4 and 5.4.1.2.3.1 – cannot be complied with. To this end, another special provision, as follows, could be assigned to substances to which special provision 386 is assigned: **(new text compared to document ECE/TRANS/WP.15/AC.1/2020/51 is shown in bold)**

“6xx For **the carriage of packages containing polymerizing** substances the provisions of special provision 386 <(ADR:), in conjunction with 7.1.7.3, 7.1.7.4 and 5.4.1.2.3.1,> need not be applied, **when carried for disposal or recycling provided the following conditions are met:**

(a) **before** loading an examination has shown that there is no significant deviation between the outside temperature of the package and the ambient temperature;

(b) **the carriage is effected within a period of not more than 24 hours from that examination;**

(c) the packages **are** protected from direct sunlight and from the impact of other sources of heat (e.g. additional loads that are being **carried** above ambient temperature) during **carriage;**

(d) **the ambient temperatures during the carriage are** below 45 °C;

(e) wagons/vehicles and containers **are** adequately ventilated;

(f) **the substances are packed** in packages with a maximum capacity of 1000 litres.

In assessing the substances for carriage under the conditions of this special provision, additional measures to prevent dangerous polymerization may be considered, for example the addition of inhibitors.”
