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**HARMONIZATION WITH THE UNITED NATIONS MODEL REGULATIONS
ON THE TRANSPORT OF DANGEROUS GOODS**

Class 6.2: Classification of clinical or medical waste

Transmitted by the Government of Germany*

The secretariat has received from the Central Office for International Carriage by Rail (OCTI) the proposal reproduced below.

* Circulated by the Central Office for International Carriage by Rail (OCTI) under the symbol OCTI/RID/GT-III/2005/52.

SUMMARY

Executive summary: The wastes from human or animal health care assigned to numbers 18 01 04 and 18 02 03 of the European Waste Catalogue (EWC) account for the majority of medical waste. European waste legislation, however, does not make provision from the point of view of preventing infection for special requirements for their collection and disposal outside medical institutions. This document provides evidence that they do not represent a serious hazard, even during carriage on public highways for the purpose of disposal.

Action to be taken: Exemption of the above types of waste from the provisions of RID/ADR by assigning them to paragraph 2.2.62.1.11.3 and deletion of existing paragraph 2.2.62.1.11.2.

Related documents: RID/ADR/ADN 2005, TRANS/WP.15/AC.1/2005/42/Add.1-OCTI/RID/GT-III/2005/42/Add.1 and Commission decision 2001/118/EC of 16 January 2001 concerning a European list of wastes.

Introduction

Medical or clinical wastes, according to the RID/ADR/ADN 2005 definition, are wastes derived from the medical treatment of animals or humans or from bioresearch. In Europe they are assigned to the six-figure numbers of chapter 18 of the European Waste Catalogue (EWC), (most recently amended by Commission Decision 2001/118/EC of 16 January 2001).

With reference to their assignment according to dangerous goods legislation to Class 6 of RID/ADR/ADN, an initial difference needs to be established between:

(a) EWC 18 01 03*

Waste whose collection and disposal, also outside medical institutions, is subject to special requirements in order to prevent infection. In particular, this concerns the diagnosis, treatment and care of patients suffering from certain infectious diseases (including cholera, dysentery, typhoid, hepatitis, active tuberculosis, viral haemorrhagic fever).

(b) EWC 18 01 04

Wastes whose collection and disposal, also outside medical institutions, is not subject to special requirements in order to prevent infection. In particular, this concerns the diagnosis, treatment and care of "ordinary" patients not suffering from the above-mentioned infectious diseases (e.g. dressings, plaster casts, compresses, diapers and other articles intended for the direct care of patients).

* European Waste Catalogue, most recently amended by Commission Decision 2001/118/EC (published in the EC Official Journal No. L.047/1, of 16 January 2001).

Medical background

(a) Evaluation in respect of infection

In the case of wastes according to EWC 18 01 03,* it should be assumed in principle that they contain pathogens of the particular infectious diseases in question. They constitute a minority of medical wastes and are collected separately in medical institutions. When carried on public highways for external disposal (incineration as special wastes), they must be assigned to UN No. 2814 when, as a result of the medical diagnosis (e.g. haemorrhagic fever), it should be assumed in principle that they contain infectious substances of which all forms should be assigned to Category A (e.g. Marburg virus). Such cases are very rare in Europe.

When, however, the patients in question are suffering from other infectious diseases (caused by Category B substances, e.g. typhoid), classification as “UN 3291 Clinical waste, unspecified” seems appropriate.

Waste according to EWC 18 01 04 often also contains, in addition to various non-pathogenic micro-organisms, human pathogens (most frequently from hazard group 2, e.g. Staphylococcus aureus, Enterococcus faecalis, Escherichia coli, Candida albicans and other substances causing wound infections, infections of the urinary tract, etc.).

Because of the nature of the materials (e.g. dressings), when mixed with materials not containing germs a “dilution” effect may occur. The likelihood of transmission (risk of infection) is particularly low, and for this reason there are no particular requirements for transport and disposal outside medical institutions from the point of view of prevention of infections and waste legislation. The wastes may be incinerated or deposited with domestic wastes. The fact that during the transport of thousands of tonnes of clinical wastes annually to disposal facilities no cases of related infections have been reported - either among the personnel responsible for waste disposal or among third parties - is proof that in practice there is no significant hazard from these wastes.

Several scientific studies with microbiological examinations undertaken in Germany ¹ have demonstrated that wastes assigned to LED 18 01 04 from hospitals and doctors' surgeries generally contain fewer pathogenic micro-organisms than “ordinary” household waste. The contents of the latter include the remains of food past the use-by date, and often also waste from the home care and treatment of sick and healthy persons, such as dressings, used paper handkerchiefs, diapers, hygienic towels and other items. Such wastes are almost always contaminated with large numbers of pathogens of all types and - as the studies show - far more germs than medical wastes. Household waste, however, is exempted from the provisions according to paragraph 2.2.62.1.7 of RID/ADR/ADN.

Waste types 18 02 02* and 18 02 03 from veterinary care are equivalent to waste types 18 01 03* and 18 01 04 from human medicine.

(b) Economic aspect

In Europe, EWC 18 01 04 waste constitutes the major part of medical waste. In Germany alone, it accounts for over 300,000 tonnes annually. To classify such waste as dangerous goods assigned to UN No. 3291 with special packaging and its carriage and disposal in incineration facilities for special wastes would entail unjustified additional costs and logistical measures that are currently impossible to implement. Such measures in any case have no justification in safety - as was shown in paragraph (b) of the introduction.

Proposals and justification

The following deletions and additions are proposed in paragraph 2.2.62.1.11 “*Medical or clinical wastes*”:

Proposal 1

2.2.62.1.11.1 should read as follows:

“For medical or clinical wastes assigned to EWC 18 01 03* or 18 02 02* a difference should be established between

- (a) wastes containing Category A infectious substances and assigned to UN Nos. 2814 or 2900 and
- (b) wastes containing Category B infectious substances and assigned to UN No. 3291.

Assignment to UN Nos. 2814, 2900 or 3291 shall be based on the medical or veterinary diagnosis concerning the patient or the animal.”

Reason:

Standard classification in Europe based on the European Waste Catalogue.

Proposal 2

2.2.62.1.11.2 Delete this paragraph, including the Note. Renumber the following paragraphs accordingly.

Justification:

This paragraph is unnecessary. There are no medical or clinical wastes corresponding to the definition in 2.2.62.1.3 of RID/ADR that should be assigned and listed separately according to Community legislation under one of the types in the European Waste Catalogue for which the conditions of 2.2.62.1.11.2 are applicable.

Proposal 3

2.2.62.1.11.3 (new paragraph 2.2.62.1.11.2) should read as follows:

“Medical or clinical wastes which previously contained infectious substances, **or medical or clinical wastes that should be assigned to EWC 18 01 04 or 18 01 03 according to the European Waste Catalogue**, are not subject to the provisions of RID/ADR/ADN unless they meet the criteria for inclusion in another class.”

Justification: See “(b) Evaluation in respect of infection” and paragraph 2.2.62.1.5 of RID/ADR/ADN 2005 (“Substances which do not contain infectious substances or *substances which are unlikely to cause disease in humans or animals* are not subject to the provisions of RID/ADR/ADN ...”).

Impact on safety

No adverse impact (see “(b) Evaluation in respect of infection”). The legal adaptation solicited in proposal 2 (deletion of 2.2.62.1.11.2) and the classification according to the European Waste Catalogue (addition to 2.2.62.1.11.3) correspond to practice regarding the classification and transport of medical wastes applied for years without incidents.

Feasibility and applicability

No problem (see above).

Bibliography (see for example)

Note

¹ Examinations of the content of pathogenic micro-organisms in fractions of significant wastes from medical institutions and their transmissibility to humans; research report ISSN 0944-5935 of the Federal Ministry of the Environment (Umweltbundesamt), Berlin, September 2003.
