



RE: The Liquidation of Hazardous Materials According to Act No. 185/2001 Coll. on Waste Management

In connection with the moving of the laboratories within the reconstructions and completion of the complex, chemical and biological materials and samples no longer usable for scientific activity may be identified. In the liquidation of these materials, it is necessary to fulfil the conditions given in Act. No. 185/2001 Coll., On Waste and in the regulations of the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), published in the collection of international agreements No. 13/2009 Coll., including the methods of their preparation for transport. Should you fail to do so, the institute is exposed to the danger of an imposed fine of up to 50 million Czech Crowns according to the Act on Waste Management, up to 30 million Czech Crowns according to the ADR and further bears the responsibility for any damages which might occur for example in a traffic accident as a result of the incorrect packaging of the transported materials.

In this regard,

I charge

the individual team leaders

with observing the following method in the liquidation of all wastes with the exception of municipal waste (e.g. glass, plastics, mixed municipal waste):

The liquidation of wastes, especially hazardous wastes, shall be conducted after agreement with the person charged with handling wastes and according to his/her instructions. This person is entrusted with overseeing that the methods set by the relevant regulations are observed in the liquidation. The person must provide information on how the chemicals should be sorted before packaging, i.e. which can be packed together and which cannot, what type of packaging is allowed, how the package should be marked etc. From this person, it is also possible to borrow literature containing information of the possibility of the conversion of hazardous materials into materials without hazardous characteristics in a chemical way. When this order comes into force, the person charged with waste management is Mr Petr Šimek, CSc, line 113, mobile telephone number: 731 447 856, email: simek@uochb.cas.cz.

When liquidating chemicals or wastes that contain them, a list of the chemicals is usually provided in electronic form in EXCEL with the request for liquidation, namely in the following layout (the terms shown in the table are explained in the text below):

Labelling and placement of the means of collection:						
Contact person:						
Person responsible for the correct completion of the list and for the content of the means of collection:						
Name	Amount	Symbols of hazard	R- phrases	UN number	Hazard class	Packing group
Potassium nitrate		O	8	1486	5.1	1
Potassium permanganate		O, X _n , N	8-22-50/53	1490	5.1	2

NB: The table shows examples for completion for potassium nitrate and potassium permanganate; the data were acquired from the FLUKA catalogue.

1st column: name

2nd column: approximate amount

3rd column: symbols of hazard (E, F, F+, T, T+, Xi, X_n, N, O, C and their combination). The meanings of these symbols are explained in Director's Order No. 12/2005.

4th column: R-phrases (the meanings of the R-phrases are explained in Director's Order 12/2005).

5th column: UN Number (a four-digit number after the letters UN)

6th column: hazard class (an Arabic numeral from 1 to 9 placed after the UN Number; it may also be in the form of a decimal. In some cases, it is followed by a number of a secondary hazard in brackets).

7th column: the packing group (numerals from 1 to 3 – sometimes Roman numerals are used) follows the labelling of the hazard class. In some cases, the letters PG or OS appear before the numerals. The data for completing columns 5–7 can thus appear in the catalogue like this: UN 1992, 3(6.1), PG 1, or UN 1992, 3(6.1), I. If the material is not limited in the means of transport, columns 5–7 are not filled in.

The data shown above can be found in most catalogues, on the website of the SIGMA ALDRICH company and in every safety document. The letter symbols of hazard are sometimes (e.g. in the FLUKA catalogue) replaced by graphic symbols. The conversion between these symbols can be found in the Director's Order No. 12/2005. Should the material not have any hazardous characteristics, columns 3–7 are not filled in. (NB: it is recommended that you contact the person charged with waste management immediately after filling in columns 1 and 2 – in many cases, these will be chemicals so commonly liquidated that the other columns need not be completed).

The means of collection (it is a term used in the Act on Waste Management for any kind of container or other equipment intended for the short-term accumulation of wastes before liquidation), i.e. a crate, box, cabinet etc., in which chemicals are

placed must be labelled so that it can be easily and clearly identified (e.g. Group X, Box 1 etc.). This labelling must be given in the list. In addition, the name of the person to be contacted for further instructions for liquidation and the name of the person responsible for the correct completion of the list and for the means of collection not having any materials placed in it that must not be placed there because of their hazards must be listed. These include for example explosive materials (peroxides), materials which can dangerously decompose at normal temperatures, materials that can undergo spontaneous combustion if the package is damaged (natrium, hydrides) etc. With these materials, the method of liquidation must be resolved individually. Not even containers with unknown content may be placed in the means of collection (essentially, this should never occur; all containers of chemicals must be labelled so that it would be possible at any time to identify their content) – the content of these containers must first be identified (identification can be replaced with a commercial assessment of the hazardous characteristics, but it is necessary to anticipate amounts which will considerably exceed 100,000 CZK per package). I strongly advise against attempts to resolve the problem by labelling a container with an unknown material with an arbitrary tag. The liquidation of this chemical can lead to material damage or even serious damage to health both at the institute and at the company which will handle the liquidation, and the culprit will bear all liability, not only labour-law but also criminal.

The list of chemicals which are contained in the means of collection is placed in it in written form, signed by the person responsible for the correctness of the completed list and for there not being any materials capable of causing an accident in it.

It is recommended that you secure the means of collection against the possibility of its being abused for the disposal of chemicals from other groups. If that happens and the culprit is not found, the group using the means of collection or area in which the chemical is found will be held responsible for the liquidation of the chemical.

It is strictly forbidden to dispose of chemicals in a way that does not allow the determination of their original owner, i.e. for example by their placement in the means of collection of another group, discarding them in the hallway, in the courtyard, in the area intended for the collection of waste solvents etc. Such behaviour will be considered as a gross breach of work discipline with all of the consequences according to the Labour Code.

All waste chemicals shall remain in the ownership of the original owner until the moment of their transfer to the company authorised for their liquidation. Until that moment, the original owner is responsible for their safe storage and is obliged to cooperate in the preparation of their liquidation. If there are problems with the liquidation of some materials, their owner is required to take them back for storage until these problems are resolved.

Each team leader is personally responsible for the observance of the method set by this order and the observance of the generally valid regulations when handling chemical and biological materials.

Prague, 14th June 2010

RNDr. Zdeněk Havlas, DrSc.
Director