Transport and handling of fumigated containers: National and international regulations – Risk assessment

Urs Schlüter, Matti Sander

An overview is given about national and international regulations about the transport and handling (operator oriented rules) and the import (product-oriented rules) concerning fumigated containers. Some emphasis is given to the effect of the “proposal for a regulation of the European Parliament and of the Council concerning the placing on the market and use of biocidal products” and its effect on the handling and import of treated materials and in how far fumigated containers are affected by this new regulation. Additionally the rules for handling, opening, ventilation and release of fumigated containers are described and interpreted which are in force in Germany. Here are especially illustrated the obligations for risk assessment according to TRGS 512 “Fumigations” and recommendations according to some best practice procedures for opening fumigated containers published by different institutions.

The provisions applicable to the import of containers can roughly be classified in two sets of rules:

– Product-oriented rules (rules on the “if” of the handling) and
– Operator-oriented rules (rules on the “how” of the handling).

The second set of rules primarily focuses on worker protection and the first usually has several functions. Depending on the nature of the respective substances contained in the product used to treat a container, product-oriented rules may be aimed to protect the worker, the consumer or the environment.

Product-oriented rules

These rules focus on the respective product or substance that was used to treat containers. The legal status of the products or substances determines the legality of the import of the treated container. Currently there are only few provisions on this “if” of the import. At this time the most important one is Dimethyl fumarate (EU 2009). Dimethyl fumarate is a biocide used to fight moulds that may cause furniture or shoe leather to deteriorate during transportation from areas with a humid climate.
It has shown to cause dermatitis, especially for consumers. Accordingly it has been decided that certain goods are not allowed to be placed on the market if they have been treated with Dimethyl fumarate. Measures have been taken under the scope of the General Product safety Directive (primarily consumer protection). However, this only was a single instrument for a specific substance and only put in force after the use of this substance has proven to be dangerous.

Therefore a rather general approach is currently under negotiation in the EU: The “Proposal for a Regulation concerning the placing on the market and use of biocidal products” (EU 2009b). Although treated articles are not in the title of the proposed legal act, previous discussions have shown that Member States see these provisions on the treated articles as a key issue under this proposed new law. It will be the first general rule on the placing on the market of articles treated with biocidal products. The estimated entry into force is 1st January 2013.

**Treated articles under the new Regulation**

The proposed new legislation introduces a new category: Treated articles. According to the definition a treated article is „any substance, mixture or article which has been treated with or incorporates one or more biocidal products“. Although it was initially discussed that these rules should also cover goods that have been fumigated for biocidal purposes, the European Council now decided that this shall not apply to treated articles “where the sole treatment undertaken was the fumigation or disinfection of premises or containers used for storage or transport and where no residues are expected to remain from such treatment” (Article 47 (1) 2nd sentence of the proposed Regulation). The key criteria will therefore be whether or not residues are expected in the containers by the time of import. Containers with jammed or glued ventilation slots will then be likely to fall under the new provisions as the jamming hints at the intention of the fumigator to remain an effective biocidal concentration in the container. The European Parliament, however, did not propose such a restriction. It therefore is nor clear whether or not such a restriction will eventually be included in the legal text when it enters into force in 2013.

If containers fall under the new provisions it is foreseen that the contained goods “shall not be placed on the market unless all active substances contained in the biocidal products that it was treated with or incorporates are included in the respective list of approved substances, for the relevant product-type and any conditions specified therein are met.”

Goods treated with biocides must then be properly labelled with the following information:

(a) a statement that the treated article was treated with biocidal products; and

(b) the address of a website containing the name of all active substances used for the treatment.”

**Example: Fumigation of containers using aluminium phosphide**

Aluminium phosphide has been included in Annex I i.a. with the following specific condition:

“Products shall only be sold to and used by specifically trained professionals.”

Fumigation – if residues are expected – and subsequent import will therefore generally be possible as long as the conditions specified are met. In this case if the fumigation was carried out by a specifically trained professional. These provisions only apply, if the container has been fumigated for biocidal purposes.

There are no corresponding provisions for plant protection products. That means although methyl bromide will not be included in Annex I, import of containers fumigated with methyl bromide will still be legal, as the fumigation under ISPM 15 constitutes a plant protection use.

**Operator-oriented rules**

The focus of the operator-oriented rules lies on occupational safety and health. Especially relevant are Directives 98/24/EC on the protection of the health and safety of workers from the risks related to exposure to carcinogens or mutagens at work (EU 2004). Furthermore a number of specific Directives laying down occupational exposure limit values apply. Two issues should be noted in the context of these rules:

– These rules are based on Article 153 of the Treaty on the Functioning of the European Union (former Article 137 of the Treaty on the European Community). Rules based on this provision follow the concept of “minimum harmonisation”. This means that Member States are free to provide nationally for a higher standard than the one foreseen in the Directive. Therefore one can not only refer to the respective Directives when looking for the applicable rules but also needs to take into account the respective national implementing rules. In Germany this would be especially the Ordinance on Hazardous Substances (GefStoffV).

– Additionally, as these rules are primarily aimed at worker protection they usually apply within an employer-employee relationship. The employer bears the legal responsibility to enable his employee to carry out his tasks in a way where he takes no harm. Therefore he needs to carry out a risk assessment for tasks involving hazardous substances – such as the handling of treated containers.

**Regulations and rules for handling fumigated containers**

Different international rules and recommendations concerning the handling of fumigated containers are available addressing different perspectives and target groups. Important examples are:

– Recommendations by the international maritime organization: e.g. “Recommendation of the safe use of pesticides in ships” are offered on the IMO website (IMO). Another important source of information regarding fumigated containers is part 7.4.3 of the international maritime dangerous goods code (IMDG) “Part Fumigated units”. This rather comprehensive regulation is also available on the IMO website. Also the Food