

Guidance Note, GN032

HOW TO PACK GENETICALLY MODIFIED MICROORGANISMS IN ACTIVITY CLASS 1 FOR SHIPMENT OFF SITE

This guidance is for the packaging of Genetically Modified Microorganisms (GMMs) in Activity Class 1. By definition these are considered to present no or negligible risk either to humans or to the environment. Nevertheless the law still places restrictions on how they should be packaged.

Note: GMMs in Activity Class 2 must be packed in accordance with the [relevant shipping regulations for infectious substances](#) and NOT in accordance with this guidance.

Triple packaging must be used for GMMs in Activity Class 1:

- A leakproof primary receptacle
- Leakproof secondary packaging
- Outer packaging

If there is any doubt about the suitability of packaging for Activity Class 1 GMMs, advice should be sought from someone who has been trained in the packaging of infectious materials. The principles are the same and he/she will be able to assist.

Packaging

- 1 Triple layer packaging is required. Packaging must be of good quality.
- 2 The sample must be packaged in a leakproof primary receptacle(s). Multiple fragile primary receptacles must be wrapped individually or separated to prevent contact.
- 3 The primary receptacle(s) must be packed in leakproof secondary packaging.
- 4 Sufficient absorbent material must be placed between primary receptacle(s) and secondary packaging to absorb the entire volume of the primary receptacle(s) should leakage occur (this is not required if the sample is solid).
- 5 The secondary packaging must then be placed in outer packaging which is rigid and of adequate strength for the contents. The smallest external dimension must be at least 100mm.

Marking

- 6 The address of both shipper and consignee must be entered on the outer packaging.
- 7 The package must be marked with a diamond at least 50x50 mm with "UN 3245" inside the diamond in characters at least 6 mm in height.
- 8 If a shipment of Activity Class 1 GMMs is accompanied by other dangerous goods, for example dry ice, appropriate packaging and marking must be provided for the other dangerous goods.



Obtaining packaging

- 9 The easiest way to obtain packaging meeting these requirements is to use the triple layer UN 3373 packaging (for infectious materials) which should be readily available. Cover up the UN 3373 diamond with a UN 3245 diamond (stickers are available for this) and cover up the words “Biological Substance, Category B” (e.g. using a black marker pen).

Nigel Corby
University Safety Adviser
August 2013