

Date: 14th December 2021

Ref: Group SB 21 012

Fumigated Cargoes, Liverpool Incident

Fumigation is the process of releasing toxic gases (pesticides) into a cargo hold or compartment for the purpose of eliminating or avoiding infestation by insects or other pests that may cause the cargo to deteriorate.

Shipowners, charterers or agents may arrange for fumigation in the ship's hold. In-transit fumigation is often preferred by shippers and charterers because it reduces time in port. If transported as part of a sea journey, fumigants must be transported in accordance with the International Maritime Organisation's Dangerous Goods Code which is given force by the Merchant Shipping (Dangerous Goods and Marine Pollutant) Regulations.

Fumigation may affect the safety and health of crew and other persons on board. Inhalation of fumigation gases may cause respiratory problems, nausea and ultimately suffocation. Incidents causing illness and death has occurred where phosphine-generating fumigants have been used.

By law, the ships Master must inform the receiving ports that a fumigation process has taken place.

This was not the case at the Port of Liverpool recently. A vessel carrying sweet potato pellets from China arrived, and on preparing to discharge the bulk bags, stevedores noticed that partially empty cannisters were distributed within the holds.

On investigation, these were confirmed to be fumigation cannisters (aluminium phosphide) and it was confirmed that the cargo had been recently treated in three holds.

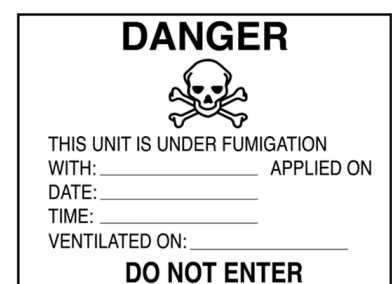
All operations were immediately brought to a halt and the MCA, MAIB and HSE were informed. The MCA has since taken enforcement action against the vessel's Master and are continuing with their investigation.

Lessons learned: Whilst there is a legal duty on the Master to inform the receiving port of a fumigated cargo, it cannot be relied upon. Ports must positively establish for themselves, that no fumigants have been employed.

HSE guidance on the subject of fumigation can be found within [HSG251](#) on the HSE's website.



Cannisters retrieved from the ship's hold.



Notices like this one **should** have been displayed on each of the ship's hatches; none were displayed.