Fumigation Risks

1. Purpose
1.1. This Safety Alert is issued by the Bahamas Maritime Authority to highlight the risks associated with in-transit cargo fumigation. It is based on the initial findings of an ongoing investigation into a very serious marine casualty.

2. Introduction
2.1. A Bahamas registered general cargo vessel was chartered to carry a cargo of corn on a short haul voyage in Europe. On completion of loading the cargo was fumigated with ALUMINIUM PHOSPHIDE at a dose of 1g/m³.

2.2. During the voyage, the vessel experienced heavy weather. On the second day of the voyage, the cargo hold’s gas-tight integrity failed and HYDROGEN PHOSPHIDE gas (PH3) entered the accommodation. Several members of the crew were overcome. One crew member died and three others had to be evacuated.

3. Causal Factors
3.1. The investigation is ongoing but attention is drawn to the following:
   - Carriage of fumigated cargo must be fully risk assessed with effective controls identified and utilised
   - Crew members must be fully briefed on the risks of carrying a fumigated cargo, symptoms of exposure to the fumigant and actions to take if those symptoms are experienced
   - The fumigant may not be detected by smell
   - Periodic monitoring may not detect fumigant in time to avert lethal levels of exposure

4. Validity
4.1. This Safety Alert is valid until further notice and may be updated as the investigation progresses.