

# Lack of knowledge of the properties and hazards of substances

Supervision carried out by the Norwegian Maritime Authority (NMA) has revealed that the crew and the shipping company have a lack of knowledge of the properties and hazards of hazardous substances that are brought on board.

The NMA carried out supervision on board a vessel where formalin was used in connection with the cargo. Formalin is very harmful to health. The substance is either contained in cargo or in separate containers/tanks, where the substance is added to the cargo when the cargo is taken on board. In this case, formalin was added to the cargo without the crew having adequately assessed the risk of using this substance. The crew did not have sufficient knowledge of the hazards associated with the use of formalin, and there was no personal protective equipment on board.

## Measures

The NMA would like to emphasise that anything brought on board that may pose a safety hazard must be risk assessed with regard to health, safety and the environment. Furthermore, the shipowners and ship management must familiarise themselves with the applicable requirements and review their procedures regarding the safety of persons working on board.

In accordance with the Ship Safety and Security Act section 7, the shipping company has a duty to establish, implement and further develop a safety management system adapted to the needs of the vessel and its activities. In the Regulations of 1 January 2005 No. 8 on the working environment, health and safety of persons working on board ship (HSE Regulations) section 11-4, further risk assessment requirements are set out for the exposure to chemicals and biological agents. Among other things, risks that may arise on board must be identified and documented with regard to:

- what one may be exposed to;
- during which activities, how and where exposure may occur;
- The concentration and duration of exposure;
- who could be subject to exposure.



If exposure is detected, further risk assessments must be conducted based on, among other things:

- the hazardous properties of the chemical;
- information from the supplier on risk to health and safety;
- information from competent authorities;
- recommended protective measures and effects of measures taken;
- knowledge that a medical condition found in a person working on board, at a special medical examination or otherwise, may be directly attributed to that person's work;
- other matters on board.

These items must be included in the company's safety management system, updated on a regular basis, and documented.

Another requirement is that shipper must always provide crew members with the characteristics and properties of the cargo. The company and ship management must ensure that this information is received and that safety data sheets are available for products that could be hazardous. Knowledge about the cargo and anything added to the cargo is also required if a substance/product is applied to the cargo after the cargo has been taken on board. A substance which, for instance, may cause danger by exposure to air, inhalation or direct contact with skin must always have safety data sheets to ensure that the substance is handled in a safe manner, even in the event of an accident.

Everyone on board must be informed of possible risks and this information must always be available and communicated in the working language on board.

## References

[Act relating to ship safety and security \(Ship Safety and Security Act\)](#)

[Regulations of 1 January 2005 No. 8 on the working environment, health and safety of persons working on board ship](#)

[Regulations of 1 January 2015 No. 1191 on a safety management system for Norwegian ships and mobile offshore units](#)

[Regulations of 16 December 2016 No. 1770 on safety management for small cargo ships, passenger ships and fishing vessels, etc.](#)

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