

Title	IMDG Code 2016 / SUPPLEMENT / Recommendations on the Safe Use of Pesticides in Ships / Annex 2
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Note	Incorporating Amendment 35-10

ANNEX 2

Threshold limit values (TLV) for vapours in air

The threshold limit value (TLV) for a substance in air has been defined * as the time-weighted average concentration for a normal eight-hour working day to which nearly all workers may be repeatedly exposed, day after day, without adverse effect. Certain fumigants, including dichlorvos, methyl bromide and hydrogen cyanide, have the ability to penetrate the intact skin and thus become absorbed into the body. In the case of ships at sea, it may be considered that personnel cannot be limited to eight hours' exposure in their particular environment in the course of each 24-hour period. However, these recommendations make clear that, in the event of excessive vapour concentrations being measured in any occupied space, steps should be taken to avoid unprotected respiration in that space and action initiated to vacate and ventilate the space. It should be emphasized that the registering of gas concentrations above the TLV in an occupied space arising from the use of fumigants on a ship should be an exceptional occurrence which would constitute the need for immediate countermeasures. In those circumstances, and in the absence of any alternative guidelines based on scientific principles, it is considered that the safe limits for the working environment accepted by a number of countries should be observed on ships.

The recommended levels* are as follows:

	TLV ppm	mg/m ³
Dichlorvos	0.1	0.9
Hydrogen cyanide**	10	11
Phosphine (hydrogen phosphide)	0.3	0.4
Methyl bromide**	5	20

* The latest edition of the Recommendations of the American Conference of Governmental Industrial Hygienists or other appropriate national recommendations or regulations should be consulted.

** Materials absorbed through the skin.