

**USE OF SOLID CARBON DIOXIDE (DRIKOLD, CARDICE, DRY ICE, ETC)****Notice to Shipowners and Masters, Officers and Crew Members**

*This Notice supercedes Notice No. M.354*

It is sometimes the practice to use solid carbon dioxide (Drikold, Cardice, Dry Ice, etc) as an emergency refrigerant in defective cold chambers, and in the packaging of containers holding deep frozen food supplies such as ice cream, fish, etc so as to retain their hard frozen condition during transit to ships.

The following precautions should be taken when solid carbon dioxide is used:

1. Gloves or similar protection should always be worn when handling solid carbon dioxide to prevent blistering of the skin.
2. When solid carbon dioxide has been used as a refrigerant in a cold chamber, a high concentration of heavy carbon dioxide gas may be built up, and care should always be taken to open the door of such a chamber for some moments before entering, and to leave it open while inside.
3. Because of the heaviness of carbon dioxide compared with air, pockets of the gas are liable to collect in poorly ventilated spaces creating an unsafe atmosphere. As the gas does not diffuse away readily, special care should be taken to ventilate such confined spaces thoroughly before entering them.
4. The "Code of safe working practices for merchant seamen", copies of which should be on board all ships, contains detailed advice on entering enclosed or confined spaces. The warnings contained in the code should be heeded and the recommended procedures followed.

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ship was actually sent to sea. It is now an offence if a ship in port is found to be unfit to go to sea without serious danger to human life because of the condition of its hull, equipment, or machinery or because it is undermanned, overloaded or improperly loaded. This offence applies to all ships in UK ports and to UK ships in foreign ports. In any proceedings it would be a defence to show that arrangements had been made to rectify the deficiencies or that it was not reasonable to have made such arrangements.

4. Other offences have also been changed. In order to supplement the powers of Section 27 of the Merchant Shipping Act 1970, that Section, as amended by Section 45(1) of the Merchant Shipping Act 1979, makes it an offence for any seamen to act in such a way as to cause, or be likely to cause, serious damage to machinery, navigational equipment or safety equipment on the ship or the death of, or serious personal injury to, a person on board the ship or to omit to do anything required to avoid such a consequence. This will include acts or omissions as a result of being under the influence of drink or a drug. In the case of a fishing vessel it will additionally be an offence under Section 28 of the 1970 Act, as amended by Section 45(2) of the 1979 Act and by the Safety at Sea Act 1986 for the skipper or a seaman to be under the influence of drink or a drug to the extent that the capacity to carry out duties is impaired whether or not the offender is on duty at the time. Finally, the offence of combining with other seamen to impede the progress of a voyage or the navigation of a ship while at sea now applies to fishing vessels as well as to merchant ships (Section 45(3)).

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