

## Loss Prevention Circular No. 10-07

### Loading of Iron Ore Fines in India

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Gard has recently been advised of several serious incidents involving iron ore fines loaded in India. Even though the main focus of this circular is iron ore fines, the advice provided applies to any type of finely divided and/or powdered cargo subject to liquefaction.

The problem appears to be liquefaction of finely powdered iron ore due to high moisture content. In all of the incidents, the cargo shifted and the vessels' stability and safety was severely compromised as a consequence of liquefaction. It is believed that the cargo had been left in the open air and therefore exposed to monsoon showers prior to loading.



According to [the SOLAS 1974 Convention](#), the shippers are obliged to provide valid certificates declaring the moisture content as well as the transportable moisture limit (TML) of any type of cargo being able to liquefy. It is imperative that these two figures are identified at the time of loading, especially if the cargo is known to have been left out in the open prior to loading. The moisture content should not exceed the TML. Otherwise the result may be liquefaction and shifting of cargo.

#### Recommendation

Gard recommends that Masters exercise extreme caution when receiving any kind of finely divided and/or powdered cargo being able to liquefy, to prevent shifting of cargo within the hold. Masters should accordingly obtain valid certificates from shippers, stating the moisture content and the TML before allowing the cargo onboard. If the required information is unavailable, and the Master and crew experience pressure to permit loading of the cargo, Gard or our local correspondents should be contacted for further advice and assistance.

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For more information regarding the Gard loss prevention products, please contact:  
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