

## Cargo liquefaction problems– sinter feed from Brazil

Several Members have reported problems with sinter feed cargoes loaded from Brazil. The ports of Ponta da Madeira and Santana have featured most prominently thus far.

### Sinter Feed and liquefaction

Sinter feed is an iron concentrate containing fine particles and moisture and, being similar to iron ore fines,<sup>1</sup> is at risk of liquefaction, resulting in cargo shift and loss of stability. Liquefaction is believed to have resulted in a number of casualties, causing the loss of many seafarers' lives. This year two International Group Member Circulars<sup>2</sup> have been issued, alerting Members to the dangers of liquefaction and the precautions to be taken, specifically with reference to iron ore fines and nickel ore.

### Problems

The Association is aware of at least one case where shippers have declared sinter feed as a Group C cargo (not liable to liquefy) under the IMSBC Code. This is in clear contravention of the Code since sinter feed is classed as a Group A cargo (under the group entry "Mineral concentrates") which may liquefy if shipped at a moisture content in excess of its Transportable Moisture Limit ("TML"), and defined in the Code as 90% of the Flow Moisture Point, ("FMP"). There are also reports of lack of local survey capacity, with surveyors reportedly acting for shippers as well as shipowners – a clear conflict of interest, a lack of local reliable testing facilities able to test for the FMP in accordance with the methods set out in the Code. Shippers are reportedly also presenting cargo to load from stockpiles that have not been sampled/analysed.

Problems can be exacerbated by heavy rainfall increasing the moisture content of the cargo. As described in the above circulars, the 'can' test<sup>3</sup> is not meant to replace or supersede laboratory testing which is the responsibility of the Shippers. Section 8 of the Code states that if the sample shows signs of liquefaction, i.e. flat surface with evidence of free moisture, arrangements should be made to have additional laboratory tests conducted on the material before it is accepted for loading. Cargo should never be accepted on the basis of the 'can' test alone. The 'can' test may indicate if the cargo is unfit for shipment but cannot by itself determine if a cargo is fit to be loaded – this can only be determined by laboratory testing. Given an apparent lack of reliable testing facilities in Brazil, expert advice has recently seen samples sent as far as the UK for testing, which can obviously result in serious delays. It is worth emphasising here the importance of avoiding the loading of cargo and parts of the cargo which have not been properly tested and documented as safe to carry in accordance with the Code as it can be difficult to discharge cargo once it is loaded, not to mention the practical difficulty of identifying "unsafe" parts of the cargo that may have to be discharged.

### Survey costs and P&I cover

The primary purpose of surveys in respect of cargoes such as sinter feed, iron ore fines and nickel ore, is to confirm safe carriage. For that reason, the Club does not cover the survey costs and neither are they considered a measure to avert or minimise loss, since if Members act in accordance with the Code and satisfy themselves as to safe carriage there should be no undue exposure under the P&I cover. The survey costs may, however, be covered in full or part if the survey is actively used in defence of a P&I claim.

[→ more](#)

<sup>1</sup> Gard News 197 February/April 2010 "Liquefaction of unprocessed mineral ores - Iron ore fines and nickel ores".

<sup>2</sup> See Gard Member Circulars Nos. 16/2010 and 23/2010.

<sup>3</sup> Described in section 8 of the IMSBC Code as a spot check a Master can conduct if he is suspicious of the condition of the cargo.

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The Club will assist Members faced with these problem cargoes as best it can. However, it is important to point out that, if a Member fails to comply with the Code they may prejudice Club cover. Rule 74 of Gard's Rules excludes cover for liabilities, costs and expenses arising from an unsafe or unduly hazardous trade or voyage. The carriage of these cargoes may give rise to various claims for which Defence cover may be available, including survey costs in connection with such claims which have been incurred with the prior approval of the Club.

#### **Advice and precautions**

Members should carefully consider the potential costs/risks of carrying this cargo before entering into new charters and, if the cargo is not excluded, they should seek to incorporate provisions that, amongst other things, require charterers to provide the documentation required under the Code (including certificates of test from an approved laboratory), ensure access to the cargo prior to/during loading for sampling/testing at owners' discretion, and make charterers responsible to pay for all costs and consequences incurred as a result of loading the cargo. The Club can provide advice on the wording of such charterparty provisions. If a Member does fix to carry sinter feed or receives a valid order under an existing time charterer to do so they should also refer to the precautions set out in International Group Circular No. 16/2010.

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