



Ship Type: Bulk      Trade Area: Indonesia

## **Bulletin 417 - 06/05 - Nickel Ore Cargoes Loaded at Tanjung Buli, Halmahera Island - Indonesia**

Concerns have arisen about the safety of cargoes of nickel ore, loaded at Tanjung Buli. These cargoes originate from open cast mining on the Indonesian island of Halmahera and are presented for loading directly from the mine with little or no processing. The consistency of the material is that of a wet mud of finely-divided particles, interspersed with varying proportions of larger rocks. The declared moisture content of these cargoes is in the region of approximately 25% to 35%. In at least one cargo, pools of free water have developed on the cargo surface during loading and during carriage. Because of the method of mining, significant variations in moisture content and physical consistency are likely from cargo to cargo.

As specified in Sections 7 and 8 and Appendix A of the IMO Bulk Code, many mineral cargoes which contain moisture and at least a proportion of small particles are liable to liquefy during ocean transport, if loaded over-moist, and may severely impair ship's stability. Liquefaction of bulk cargoes has led to a considerable number of total losses in the past. In order to prevent these hazards, the IMO Bulk Code requires such cargoes to be tested and their flow properties to be certified by shippers prior to loading.

The test methods specified by the IMO Bulk Code are unsuitable for cargoes that contain lumps greater than 25mm in size. As the nickel ore from Halmahera Island contains larger lumps, its flow properties cannot be evaluated accurately using IMO-approved test methods.

In apparent compliance with the IMO Bulk Code, the Indonesian shippers of the subject cargoes have in the past declared the material as being liable to liquefy and to possess a transportable moisture limit in excess of the actual moisture content at the time of shipping. However, because of the lumpy consistency of the material it is thought that the test certificates produced by shippers do not accurately describe the properties of the material.

At present, the flow properties of these nickel ore cargoes are under active investigation to establish the potential hazards involved in their carriage. Until the outcome of these investigations is known, members are advised to exercise caution when fixing Indonesian nickel ore. Attention is drawn to the IMO Bulk Code, in particular Sections 4, 7 and 8 and Appendix A. Members are advised not to rely solely on the certification produced by shippers when assessing the safety of these cargoes.

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