

## New draft test procedure and individual schedules for Groups A and C bauxite

IMO circular introduces a new draft test procedure for determining TML for bauxite and draft individual schedules for Group A bauxite fines and Group C bauxite.

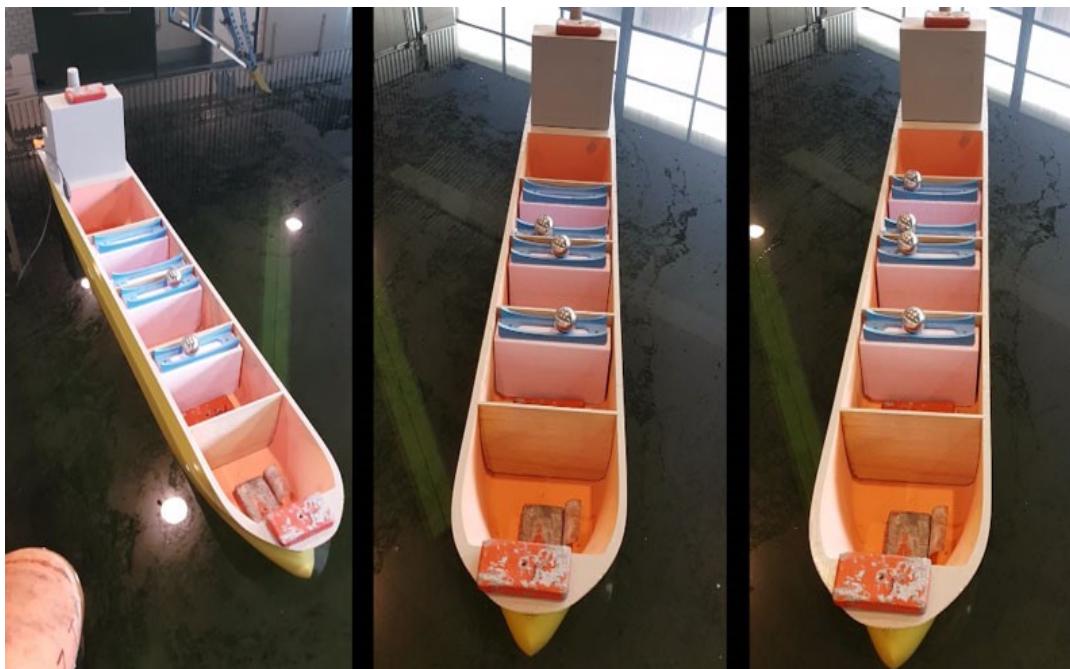
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Further to Gard's [Update on Group A bauxite that can cause vessel instability](#) we can now report the IMO's release of a new circular on the [Carriage of bauxite which may liquefy](#) and which supersedes IMO's 2015 circular.

The circular includes the draft test procedure for determining the transportable moisture level (TML) for bauxite, the draft individual schedule for Group A bauxite – bulk cargo shipping name 'bauxite fines'; and the draft amendments to the individual schedule for Group C bauxite.

The draft amendments are expected to be adopted by Member States at the Maritime Safety Committee (MSC 101, in 2019) and to enter into force as amendments to the IMBSC Code on 1 January 2021. In the meantime, the circular merely invites Member States to consider the draft IMSBC Code changes when classifying bauxite Group A or C. Gard understands that some states may give early legal effect to the changes and we understand Australia will be applying the [new tests and schedules to bauxites shipped from Australia](#).



### **Group A bauxite not listed in the Code**

For Group A bauxite, which is currently not listed in the Code, Member States are invited to take into consideration the draft new test and draft new Group A schedule for the purposes of applying section 1.3.2 of the Code. This states that the competent authority (CA) of the port of loading shall provide to the master a certificate stating the characteristics of the cargo and the required conditions for carriage and handling of the shipment. Whilst currently under no obligation to do so, a CA might elect to certify that Group A bauxite is to be carried in accordance with the draft Group A bauxite schedule. The shipper would then need to declare the cargo in accordance with that schedule and provide moisture content and TML certificates. The test method should be approved by the CA. If a state gives early legal effect to the draft new schedules a section 1.3.2 certificate may become unnecessary.

If there is any doubt with regard to CA authority certificates for Group A bauxite further guidance should be sought from the Gard.

Gard attended an IMO workshop where the Global Bauxite Working Group research was presented.

### **Group A or C bauxite?**

Group C bauxite is already listed in the Code, therefore Section 1.3.2 of the Code does not apply. Owners should be aware, however, of the draft changes to the Group C bauxite schedule, and seek clarification from the CA if shippers attempt to declare bauxite in accordance with the existing schedule. The CA should be asked to confirm whether the new schedule has been taken into consideration and the cargo can properly be considered Group C. The draft new Group C schedule applies to bauxite cargoes containing either:

- 30% or less of fine particles less than 1 mm ( $D_{30} \geq 1$  mm); or
- 40% or less of fine particles less than 2.5 mm ( $D_{40} \geq 2.5$  mm); or
- both;
- or where the shipper provides the master with a certificate, in accordance with the result of the test approved by the competent authority of port of loading, stating that the moisture of the cargo freely drains from the cargo so that the degree of saturation is not liable to reach 70%.

This contrasts with the current Group C schedule for bauxite having a moisture content of 0 to 10% and a size description of 70% to 90% lumps: 2.5 mm to 500 m; 10% to 30% powder.

If there is any doubt with regard to bauxite declarations by shippers, further guidance should be sought from the Club.

### **Can test**

There is nothing to suggest that the can test cannot be used as a check test for determining the possibility of liquefaction of bauxite, always bearing in mind that this is only reliable as a 'fail only' test and may not be representative of the comparatively larger parcel of cargo being sampled. As the Code states at section 8.4.2: *"If samples remain dry following a can test, the moisture content of the material may still exceed the Transportable Moisture Limit (TML)"*.

## **Dynamic separation**

As mentioned in our previous update, the GBWG research concluded that Group A bauxite undergoes a process described as 'dynamic separation' which after cargo compaction during the voyage can lead to the formation of a liquid slurry (water and fine solids) above layers of more solid bauxite. In that broader sense it is still a cargo which may liquefy. The slurry may lead to a dangerous free surface effect, which in turn can cause vessel instability. We hope to describe this process in more detail in a future update, but for present purposes it is worth to note that the draft new schedule for Group A bauxite states:

*If free water or a liquid slurry above the cargo or fluid state of the cargo is observed, including the flattening of the cargo, during voyage, the master shall take appropriate actions to prevent cargo shifting, loss of stability due to free surface effect and potential capsizing of the ship*

*An atypical motion of the ship (wobbling) may also be indicative of cargo instability and the master shall consider appropriate action.*