



# Commodities Expertise **Liquefaction of Mineral Ores**



# Liquefaction of Mineral Ores

Unprocessed metal ores (Nickel Laterite, Bauxite, Iron Ore Fines, etc.), Processed Metal Ore Concentrates (Zinc, Lead, Copper, Iron, Manganese, Chrome Concentrates etc.), and Mineral Ore Concentrates (Fluorspar, Baryte, Ilmenite Sand etc.).

Liquefaction risks and associated mechanisms of cargo shift remain of major concern to the safe shipping in bulk of Group A cargoes. They continue to present significant hazards and expense to the maritime industry both in terms of the tragic loss of life arising through capsizing and sinking of vessels as well as the consequences and commercial fallout from 'near-misses'. Although it is possible to safely carry Group A cargoes if the requirements of the IMSBC Code are strictly followed, all too often relevant parties do not comply with their obligations, out of lack of awareness, poor infrastructure or commercial expediency.

Brookes Bell's scientists have decades worth of combined experience in dealing with these cargoes, both in terms of assessment for safe carriage, intervention and assessment when dangerous cargoes have been

inadvertently loaded prior to sailing, as well as incident response when things go wrong. We can provide industry leading, world-class technical advice on all aspects of the carriage of group A commodities including:

## Prior to Shipment

- Assessment of safety for carriage;
- Correct methods for sampling of stockpiles and onboard cargo stows;
- Advising and supervision of testing for compliance with the requirements of the IMSBC Code (i.e. FMP, TML and actual MC determination);
- Loading supervision.

## During Carriage

- Incident management;
- Advice and supervision of sampling;
- Testing and evidence collection in casualty situations, ports of refuge or at discharge.



Sampling shore stockpiles



Liquefied lead concentrate



Bauxite



Liquefied nickel ore causing vessel list

## Contact

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