

Carriage of distillers' Dried Grain

Background

Gard has received numerous enquiries from members for advice on the carriage of distillers' Dried Grain (DDG) or distillers' Dried Grain with solubles (DDGS). These cargoes are often incorrectly declared by shippers. They are sometimes declared as harmless bulk cargoes whereas at other times they declare these as hazardous cargoes under the provisions of IMO's Code of Safe Practice for Solid Bulk Cargoes (BC Code) for seed cake. These discrepancies in shippers' declarations require some clarification.

Regulations and risks involved

Shipowners are often advised to follow IMO's Code of Safe Practice for Solid Bulk Cargoes (BC Code) for seed cake. The classifications for seed cake under the IMSBC Code are as follows (IMO Class 4.2, UN Number 1386 SEED CAKE containing vegetable oil):

- 1386(a) – Mechanically expelled seeds, containing more than 10% oil or more than 20% oil and moisture combined.
- 1386(b) – Solvent extractions and expelled seeds, containing not more than 10% oil and, when the amount of moisture is higher than 10%, not more than 20% oil and moisture combined.

It is our understanding that the IMO regard the present BC Code and the new International Maritime Solid Bulk Cargoes Code (ISMBC) as being based on the chemical properties and composition of the commodity rather than its name or method of production. The absence of any specific mention of DDG or DDGS in the Codes is not considered to be of consequence as both Codes accept that it is impossible to individually name and list all commodities that fall within their ambit.

DDG/DDGS is not a seed cake in the true sense of the word since it is not a residue produced by removing oil from the grain by either physical or solvent extraction. Dried distillers' grain is the by-product of the fermentation of corn and contains a residual oil content of more than 10% and combined oil and moisture content of more than 20%. This material may self-heat and, if wet or containing an excessive proportion of unoxidised oil, ignite spontaneously if the product is or becomes wet.

Recommendations

In order to comply with the BC/IMSBC stipulations for the carriage of cargoes under UN1386 Gard's advice is to monitor the cargo temperature, which must be below 55 degrees Celsius or below the ambient temperature plus 10 degrees Celsius whichever is the lower. There is a requirement to regularly measure the temperature of the cargo at different depths within the stow and to record the results. If the cargo temperature reaches 55 degree Celsius and continues to increase, ventilation should be stopped. If self heating continues the vessel must introduce carbon dioxide or inert gas into the cargo space.

It is the shippers obligation to provide appropriate information about the cargo to be shipped and to establish that the cargo can be safely carried in accordance with the BC Code. This information should be accompanied by a declaration (an example of which can be found in the ISMBC Code) and should include a certificate from a person recognised by the competent authority concerning the cargo's actual water and moisture content.

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