



## Coast Guard Sector Houston-Galveston Marine Safety Information Bulletin 08-20

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### Carriage of cargoes requiring additives or inhibition: Have you read your certificate?

Sector Houston-Galveston has encountered a concerning number of discrepancies involving the carriage of chemical *and* liquefied gas cargoes requiring protection by additives and/or inhibition.<sup>1</sup> This concern was compounded following the recent release of the interim investigation report<sup>2</sup> detailing the 2019 fire and explosion onboard a chemical tanker in Korea. Data recovered from the damaged vessel indicates that a cargo required to be inhibited was actively polymerizing at the time of the explosion.

The purpose of this bulletin, is to share information and remind vessel owners, operators, charterers and other involved parties of their responsibility to ensure that all requirements involving the safe carriage of cargoes requiring protection are thoroughly and effectively implemented. Failure to do so will likely result in Coast Guard actions to drive accountability and mitigate risks.

The regulations require vessels to carry a certificate to provide objective evidence that cargoes requiring inhibition are appropriately protected against polymerization or other deleterious self-reaction. The most alarming deficiency our Port State Control Officers (PSCOs) find are those instances where certificates are missing and crews cannot present any objective evidence that their vessel's cargoes were ever inhibited. Such gross non-compliance poses a significant risk to the vessel, its crew, the port, and the marine environment.

The most common oversight our PSCOs identify are certificates that lack basic (and required) information, including the date the inhibitor was added, the duration of effectiveness, and oxygen dependency status. These oversights are easily prevented with careful attention-to-detail upon certificate delivery.

Another recurring issue involves those action(s) a ship's staff is expected to take should the length of a voyage exceed the effective "lifetime" of the inhibitor.<sup>3</sup> Protection certificates routinely have statements suggesting a crew should add more inhibitor if the additive's content falls below specification. Discussions with numerous vessel operators have revealed that there are three main problems with this recommended course of action: first, vessels typically do not have the means to monitor a cargo's inhibitor concentration while at sea; second, vessels do not carry extra inhibitor onboard; and third, ships do not have well developed procedures that ensures a crew can safely add more inhibitor to a cargo while at sea and when necessary.

<sup>1</sup> The IMO requirements pertaining to cargoes requiring inhibition can be found in the *International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)*, section 15.13, and both the 1993 and 2016 editions of the *International Code for the Construction and Equipment of Ships carrying Liquefied Gases in Bulk (IGC Code)*, section 17.8. The title of section 15.13 of the *IBC Code* is "Cargoes protected by additives", and the regulation refers to the required documentation as a "Certificate of Protection." Since the terms "inhibited" and "inhibitor certificate" are most commonly used within the maritime industry, these terms will be used throughout this MSIB.

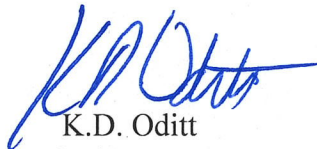
<sup>2</sup> As noted in the MAIB's report, "the information contained in this interim report is based on investigations to date. Readers are cautioned that there is the possibility that new evidence may become available that might alter the circumstances as depicted in the report."

<sup>3</sup> This is a required element of all inhibitor certificates. See *IBC 15.13.3.5* and *IGC (1993 and 2016) 17.8.4*.

The regulatory requirement to carry a certificate of inhibition that wholly and accurately addresses all required elements **must** be taken seriously. Such certificates should provide vital information to the vessel's crew, owner, operator, and other involved parties on how to safely transport cargoes requiring inhibition. Failure to carry a certificate with the proper information violates international conventions and can lead to Port State Control intervention, including initiation of an IMO detention, or other control measures that may result in substantial delays to vessel operations.

Sector Houston-Galveston encourages vessel operators who carry cargoes requiring inhibition to conduct internal audits of their procedures relating to the carriage of inhibited cargoes, with particular emphasis on required documentation and practical contingency measures. Also, proactive communication between vessel owners/operators and loading terminals/charterers is highly encouraged to promptly address any incomplete or inaccurate certificates prior to sailing.

For more information, questions, or comments regarding this bulletin, the primary contact is Sector Houston-Galveston Port State Control branch at (281) 464-4732 or [houstonpsc@uscg.mil](mailto:houstonpsc@uscg.mil).



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