



## **Guidance: SOLAS prohibition of the blending of liquid bulk cargoes and production processes during sea voyages**

As of 1 January 2014 an amendment to SOLAS Chapter VI on the “Carriage of Cargoes and Oil Fuels” came into force, adding a new regulation VI/5-2 that prohibits the blending of bulk liquid cargoes and production processes on board ships during the sea voyage.

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The regulation reads as follows:

**Prohibition of the blending of bulk liquid cargoes and production processes during sea voyages**

1. The physical blending of bulk liquid cargoes during sea voyages is prohibited. Physical blending refers to the process whereby the ship's cargo pumps and pipelines are used to internally circulate two or more different cargoes with the intent to achieve a cargo with a new product designation. This prohibition does not preclude the master from undertaking cargo transfers for the safety of the ship or protection of the marine environment.
2. The prohibition in paragraph 1 does not apply to the blending of products for use in the search and exploitation of seabed mineral resources on board ships used to facilitate such operations.
3. Any production process on board a ship during sea voyages is prohibited. Production processes refer to any deliberate operation whereby a chemical reaction between a ship's cargo and any other substance or cargo takes place.
4. The prohibition in paragraph 3 does not apply to the production processes of cargoes for use in the search and exploitation of mineral resources on board ships used to facilitate such operations.\*

----- \*Refer to the Guidelines for transport and handling of limited amounts of hazardous and noxious liquid substances in bulk offshore support vessels (resolution A.673(16), as amended).

Since the regulation entered into force, Gard has received several enquiries from members and clients regarding how it may be properly interpreted and applied, as well as practical implications. Hence, Gard has sought clarification from the IMO and now wish to share our understanding of the issues concerned.

Please note that the guidance provided herein represents Gard's understanding of the issues as at the time of publication, which may be subject to change, and should not be treated as a substitute for advice received from relevant Flag States, Port States or other relevant authorities. Members and clients who contemplate undertaking operations to which the regulations apply are encouraged to contact the above authorities in advance. Furthermore, members and clients are encouraged to contact Gard as concerns areas where further clarification is needed.

**Guidance:**

Below is a list of issues where clarifications have typically been sought by our members and clients:

**(1) Where does a “sea voyage” start and end?** The regulation prohibits blending and production processes on board vessels during a “sea voyage”. We understand this refers to the ship when located outside port limits. It is up to each port state and port authority to define the respective port locations and limits and the circumstances under which blending may be undertaken in port. Permissions and guidelines for undertaking blending and chemical processes whilst in port may therefore be available or obtained from the relevant port authority.

**(2) The meaning of “product designation”:** We understand that this means a “new product designation”, i.e. a new end product which varies in specification from the original cargo(es). For example, a blended product with an altered flash point or sulphur content different from either of the original cargoes would appear to fall within the scope of the prohibition. However, further guidance may be needed on the *degree of change* necessary for an end product to be treated as varying in specification for this purpose.

**(3) The meaning of “production processes”:** The regulation states that a production process is “any deliberate operation whereby a chemical reaction between a ship’s cargo and any other substance or cargo takes place” and is prohibited. We understand a “chemical reaction” to mean a process where two or more reactants interact to produce a product(s) that differs from the reactants in their atomic/molecular structure and “production process” means any deliberate process whereby a chemical reaction between a ship’s cargo and another substance results in a new product designation. Simply put: if cargo A and substance B are allowed to react in order to produce cargo C then this is a “production process” and thus prohibited.

**(4) The use of inhibitors:** There have been enquiries whether the use of inhibitors may be considered blending of cargoes, or a production process, and therefore be prohibited. Some cargoes react with an inhibitor or oxygen in order to prevent other dangerous reactions, such as polymerisation. Gard has queried, in particular, whether these inhibition reactions will be considered a “production process”. Our understanding is that they will not be, as the use of inhibitors preserves the cargo in the monomeric state and does not create a new product designation.

**(5) The use of additives and dyes:** We have received enquiries whether the use of additives or dyes might be considered “blending” of cargoes or a “production process”, and therefore be prohibited. We understand that the prohibition against the blending of cargoes will only apply to the mixing of additives or dyes if they are also carried and declared as cargo. Furthermore, the prohibition against production processes will apply to the use of additives or dyes if these substances are used to react with the cargo in order to produce a new end product, which varies in specification from the original cargo, as stated in (2) above.

**(6) What is permitted to preserve the safety of the ship and/or to protect the marine environment?** The regulation contains an exception for blending operations performed at sea which are necessary for the safety or protection of the environment. This has caused some confusion as there is no similar exception for production processes. In our view, it is difficult to envisage a situation where a production process in the meaning of the regulation as discussed in (3) above would be necessary for reasons of preserving the safety of the ship or protection of the marine environment. Each such incident would need to be considered on its own merits.

**(7) What if the cargoes being blended are the same product?** We understand that “different cargoes” means products in different tanks. Thus, even if products of the same description are loaded in different tanks they are considered “different cargoes” for the purposes of the regulation. Our understanding is furthermore that the commingling of similar cargo parcels with different specifications, e.g. a different flash point or sulphur content, is prohibited during a sea voyage, as long as the end product is a cargo with a new product designation. However, the commingling of identical cargoes that do not result in an end product with a new product designation is allowed under the regulation even if the identical cargoes were originally carried in different tanks.

**(8) What if blending is performed without the use of the ship’s internal pumps and pipelines?** The regulation only prohibits cargo blending where the ship’s cargo pumps and pipelines are used to internally circulate two or more different cargoes. Therefore, where the mixing of cargoes is performed by other means, it would seemingly not be prohibited under the regulation. A possible example is where the ship’s crew manually tip the contents of drums into the cargo tanks. However such operations may nonetheless fall foul of the prohibition against production processes if they result in a cargo with a new product designation.

## **P&I cover issues**

Members and clients should note that the blending of bulk liquid cargoes and production processes on board ships during the sea voyage in contravention of SOLAS regulation VI/5.2 may prejudice the P&I cover in respect of liabilities, losses, costs and expenses resulting therefrom. Hence, it is advised to contact Gard in case of uncertainty.

Whilst written prior to the entry into force of SOLAS regulation VI/5-2, our previous Gard News article concerning “[LOIs for commingling or blending cargo on board](#)” (Gard News No.172 - 2003) may also be of interest.

### **Final comments**

As stated above, our guidance shall not be treated as a substitute for advice from relevant authorities. Members and clients who are contemplating cargo blending or production processes as defined in SOLAS regulation VI/5.2 should seek advice and guidance from the relevant Flag State and possibly Port State authorities.

We understand written guidance on the interpretation and application of SOLAS regulation VI/5.2 may be forthcoming from the IMO and will keep members and clients posted in this regard.

In the meantime, we recommend members and clients should review their existing charter parties to ascertain whether any express reference is made to any operations to which SOLAS regulation VI/5.2 may apply, and if so, whether there are any obligations under the charter party that might constitute a breach of the regulation for which legal advice should be sought. As concerns future charter parties, it is recommended to ensure that the obligations are not beyond what is permitted by the regulation.