



JAPAN P&I NEWS

To the Members

China – off-spec cases for Phenol and MEG (Mono Ethylene Glycol)

We would like to draw your attention to the frequent cases of off-specification of Phenol and MEG (Mono Ethylene Glycol) in China and introduce the preventive measures.

There are many cases occurred in relatively short round voyages from South East Asia (i.e. Thailand) or Eastern Asia (i.e. Korea, Japan) to China where discharge operations were suspended due to the off-specification of those cargoes in color and/or UV transmittance were found before discharging.

As you are aware, Phenol and MEG are very sensitive chemical goods. Specifications of those shipments may be varied by tiny changes in the ship's tanks. Specifically speaking, the main cause of this off-specification claims are being exposed to the air during a long period.

For your reference, we report four cases occurred since the last December as follows;

Vessel A (Cargo: Phenol): During the voyage from Thailand to China

The off-specification of Phenol in color was claimed. Reportedly, Vessel A did not equip N2 generators nor N2 cylinders. Besides, N2 Blanketing* in cargo tanks was not performed, because the terminal at loading port did not supply N2 to Vessel A.

Vessel B (Cargo: Phenol): During the voyage from Singapore to China

The off-specification of Phenol in color was found at the time of the sampling test by means of the cargo pump circulation at the discharging port even though N2 Blanketing in cargo tanks of Vessel B was carried out by the terminal at the loading port, and cargo temperature control was performed properly during sea-carriage.

Vessel C (Cargo: MEG): During the voyage from Korea to China

The off-specification of UV Transmittance for MEG was found. Vessel C did not perform N2 Blanketing during the sea-carriage. Further, there's no specific instruction from Charterers nor Shippers. While discharging operation was carried out without any troubles at 1st discharging port in China, cargo samples taken at 2nd discharging port one week later were off-spec.

Vessel D (Cargo: MEG): During the voyage from Indonesia to China

The off specification claim of UV Transmittance for MEG was found. Vessel D did not perform N2 Blanketing during sea-carriage. Furthermore, there's no specific instruction from Charterers nor Shippers.

*N2 Blanketing is to purge in cargo tanks with Nitrogen after cargo loading, in order to prevent cargo damage with

down oxygen level. It is also called N2 padding.

As you can see from the cases, if Phenol and MEG are exposed to the air during a long time (i.e., more than 1 week), they would be easily deteriorated due to the cargo's oxidation. After loading, in case that a tank is not fully loaded of the cargoes, the tank has a limited air space. When this situation continues more than one week without any N2 injection into the tank, the cargoes may deteriorate gradually.

In order to prevent the cargo deterioration, N2 should be injected into the ship's cargo tank at appropriate timing during the voyage and oxygen level of the air in the tank should be reduced.

●Phenol - discoloration

The main cause of the discoloration of phenol is the oxidation reaction by oxygen in the air or the contamination with foreign substances such as last cargo. Phenol compounds are infective to oxidation reactions and this character is applied to antioxidants.

●MEG - deterioration of UV Transmittance

When MEG comes into contact with air and the amount of dissolved oxygen increases, the oxidation reaction proceeds, and peroxides generate carbonyl compounds such as glycolic aldehyde, glycolic acid and glyoxal. In case of the amount of such degradation products increases, the absorbance around 200-220 nm mainly increases remarkably, then the numerical value of the UV transmittance shows a decrease.

According to our recent experiences, it seems that when some ship owners receive the voyage instructions of carrying the Phenol or MEG from the shippers or the charterers, they are not given full explanations for the care of the cargoes during the voyage by the shippers and/or the charterers and they just comply with the voyage instructions without any detailed information about the cargo from the shippers or the charterers. Some charter parties were concluded without any relevant clauses about the care of these sensitive cargoes.

In China, it would be difficult for the vessel owners to totally reject the alleged claims for off-specification of this sort of chemical goods with the defense of "inherent vice" of the shipments. If the cargo claimants allege the off-specification and discharging operation is suspended, in most cases, the cargo claimants request our members to provide P&I Club LOU or Chinese Insurance Company's LOU for the resuming of the discharging. In that case, our members may suffer from huge time loss, the damage to the cargoes and shore tank charges. As a result, it may lead to delay their next business. In our previous handling case, our members had to change the next voyage, although fixed, to find other buyers in another country because no buyers could be found in China. In some cases, the off-specification claim shall lead to the court proceeding in China and it shall take much time and costs to conclude the claim. Even if our members succeed in defeating the claim or succeed in the recovery of their loss from the charterer and shipper, our member's costs incurred to do this, i.e., fees for correspondents, surveyors, lawyers and other costs may be unrecoverable.

As an important point, our members should discuss how they should deal with these sensitive cargoes during our member's custody with the shippers or charterers properly when they receive the voyage instruction of carrying Phenol and MEG. Needless to say, if the ship does not have any N2 generators on board, our members may consider to reject the carriage of cargoes for avoiding our member's loss.

Members are kindly recommended to be prudent in taking care of these cargoes including following means;

1. To take shore tank samples before loading and keep it properly if possible.
2. At loading ports, to clean-up ship's tank and obtain cleanliness certificate (dry certificate) before loading.
3. To take samples from the ship's tank at the loading port and keep it properly and To make sure that N2 from the terminal can be pumped in the ship's tank after loading.
4. During the voyage, to make N2 Blanketing to the ship's tank from the ship's generator if the ship is equipped with it
5. To be checked that there is no leakage at target pressure and the ship maintains P/V valves for each tanks prior cargo loading.
6. To the cargo of phenol, it is necessary to maintain a proper temperature and keep its record on board per shipper or charterer's instruction;
7. To take samples from the ship's tank at discharging port and keep it properly.

If you have any questions about the carriage of Phenol & MEG, please feel free to contact us.

We wish you all safe and pleasant voyages.

Yours faithfully,

The Japan Ship Owners' Mutual Protection & Indemnity Association