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# Avoiding Accidental Mixing of Sodium Hypochlorite

Do **NOT** mix Sodium Hypochlorite (bleach) with **ANY** other chemical unless adequate engineering controls and personal protective equipment (PPE) are in place. Accidental mixing may cause dangerous conditions that could result in injury to personnel and/or damage to property or the environment. This document focuses on recommendations for avoiding accidental mixing during bulk unloading.

_____ 1. Verify that shipping papers and other required documentation have been delivered to a responsible authority at your location.

_____ 2. Verify that the cargo tank is loaded with sodium hypochlorite solution by careful inspection of the bill of lading, the vehicle number, commodity marking and placards (UN 1791) and/or sampling. Extreme care should be taken to ensure cargo tank contents are properly identified.

_____ 3. Verify that the sodium hypochlorite receiving tank has sufficient capacity to receive the sodium hypochlorite solution to be transferred.

_____ 4. Verify that any common drain sump, used for multiple products, is empty, rinsed, and isolated prior to beginning the unloading process.

_____ 5. Verify that the sodium hypochlorite will be unloaded into the correct receiving tank by checking unloading connections/piping. All unloading connections/piping should be labeled/marked with the product name or UN/NA identification number.

_____ 6. Confirm, by a second person, that the connection has been made to the correct receiving tank.

_____ 7. Monitor tank level during the unloading process, if the appropriate tank level is not increasing then the product could be going elsewhere.

_____ 8. DOT/TC regulations require a cargo tank to be monitored or attended by a qualified person at all times during unloading.

**DESIGN CRITERIA**

- Locate sodium hypochlorite unloading connections away from incompatible product loading/unloading connections.
- The sodium hypochlorite piping should be short, visible and marked as best as possible so that the unloader can trace the product piping from the connection point to the receiving tank.
- Sodium hypochlorite unloading lines should be dedicated to avoid any compatibility issues.
- Consider using a lockout system to prevent unloading into a tank prior to proper verification.

Approved by the Customer Stewardship Issue Team on 03/23/2010