

STANDARD OPERATING PROCEDURE
FOR SOLVENT TANK TRUCK LOADING

Steps

1. Close derail and set up blue flag signs.
2. Spot truck at appropriate loading station and lower access ramp to truck.
3. Examine PPG bill of lading, carrier bill of lading, and copy of customer order for product to be loaded, quantities of product, and any special loading or shipping instructions.
4. Check the Motor Carrier number (MC No.) of the tank, and the test date(s) stenciled on the front of the trailer. Record MC No. and test dates on PPG Bill of Lading.
5. Check the interior of the trailer compartment(s) using the high intensity light source on the rack.
6. Check the piping and valving on the tank.

Key Points

1. Tank truck loading is performed over a rail car track, so rack must be secure from oncoming rail cars.
3. This must be done to make sure customer gets correct product, and to comply with certain customer or sales office requests such as:
 - a. Sending certificate of analysis to customer.
 - b. Meeting special product specifications.
 - c. Sealing truck for shipment.
 - d. Amounts and size of hose required.
 - e. Drum nozzle, if required.
4. The MC No. signifies certain design features of the tank, such as valving, safety relief devices, and materials of construction.

Solvents can only be loaded in certain type tanks (see chart - Tank Trailer - MC Type Number).
5. Any trash, moisture, or chemical(s) which would contaminate or react with solvents must be removed from the trailer before it is loaded.
6. The tank must have, for each compartment, a primary and secondary outlet valve in the discharge piping, and a dust cap for each discharge outlet.

The primary valve is commonly called the internal valve, and is located at the compartment discharge opening.

The secondary valve is at the end of the discharge piping for each compartment.

7. Check the discharge valves for operation.

7A. For the following products:
Trichlor - all grades.
Perchlor - all grades.
Trichloroethane - all grades.
Primary valves must operate but do not have to be leak tight.

7B. For the following products:
Ethylene Dichloride
Vinylidene Chloride
Primary valves must operate and must not leak through.

7C. Secondary valves must operate and must not leak through, regardless of product loaded.

7D. The operation of the valves is the driver's responsibility. You merely have to witness the operation of the valves to make certain they operate.

8. If required, check the trailer for safety relief devices and fusible disc caps.

Note: See Addendum No. 1

8. For the following products:
Ethylene Dichloride
Vinylidene Chloride
The trailer must have at the top of each compartment, at least one safety relief device and one fusible disc cap.

9. For vinylidene chloride shipments only.

Check trailer for leaks. If trailer is suitable to load, insert a purging lance through open hatch and purge trailer about five minutes to clear air from trailer. Remove lance after purging and secure hatch cover.

9. Trailer must be able to hold a nitrogen pad for vinylidene chloride shipments. Trailer must not leak. Check all fittings, valves, gaskets for leaks prior to loading. Use nitrogen when pressure checking and purging trailers.

10. Determine the quantity of product to be loaded from applicable tables or charts.

Foreman will provide information regarding any blends that must be loaded.

10. Weight limitations on highways in various states differ. Use current weight limit information to determine load.

11. If product is available in shipping tank, open appropriate valves to loading pump and line up to rack and start pump.

11. Always leave recirculation valve to tank open slightly to protect pump seal when discharge valve is closed on rack.

11. If product must come from operating unit, call the operator in unit and request transfer of product needed.

12. For vinylidene chloride and ethylene dichloride shipments only.

Connect grounding leads to trailer prior to loading product.

12. Connect one lead from rack to truck, and one lead from the loading line, upstream of the discharge valve, to the trailer. Grounding must be done in order to prevent static electricity buildup while loading flammable products.

13. For solvents and ethylene dichloride shipments.

Load trailer with product through opened hatch. Flush several gallons of product through discharge piping of truck to remove hidden trash or moisture that may be present. After loading, shut down loading pump.

13. Spills must be avoided. Flush must be directed to flush collection system. Use meter to load truck, if operational, otherwise use outage gauge.

Use stainless steel loading pipe when loading product.

14. For vinylidene chloride shipments only.

Connect loading hose to discharge piping of truck. Connect vent hose between vent control system and vent piping atop trailer. Open vent valves on control system and on trailer. Open discharge valves on trailer. Open loading line valve and load trailer with product using in line meter.

14. Personnel exposure to and releases to the environment of liquid and vapor vinylidene chloride must be avoided. Vent must go to control system.

After trailer is loaded, clear loading line into truck using nitrogen. Shut down loading pump.

Clear vent line into trailer using nitrogen until pressure inside trailer is 12 - 15 PSIG. Disconnect vent line from trailer.

Check trailer again for leaks. All leaks must be stopped before shipment is made.

Trailer must be able to hold nitrogen pad to avoid oxygen intrusion into trailer and contacting product.

15. Sample product in glass container. Properly identify sample and deliver to main laboratory for analysis.

For Solvents - Use one-half gallon glass bottle.

For Ethylene Dichloride - Use one gallon amber stained bottle.

15. Every shipment of solvents and ethylene dichloride must be sampled. Sample must be analyzed and cleared by main laboratory before shipment can be made.

15a. Vinylidene chloride shipments will be sampled only under certain circumstances. Check with shipping foreman before sampling

16. Attach product identification tag to hatch cover and discharge line of every loaded compartment of the truck.

16. It is PPG policy that this identification be made before shipment is made.

17. Complete paperwork in office as follows:

1. Sign bills of lading and carriers demurrage ticket, if necessary.

1. DOT regulations require signing of bill of lading.

2. Identify on PPG bill of lading the content of each compartment of a multi-compartment trailer and have driver sign to acknowledge same.

2. Identify loaded as well as empty compartments. Driver must sign before he leaves plant.

3. Provide driver with placards, if truck must be placarded. It is driver's responsibility to placard truck.

3. Placard product shipments as follows:

Ethylene Dichloride - UN 1184
Vinylidene chloride - UN 1303
Trichloroethylene - UN 1710

4. Provide driver with transportation safety data card for each product loaded on truck.

4. It is a PPG policy that this be done, and so states on the PPG bill of lading

5. Complete shipping department record forms as required.

18. Raise access ramp to truck, disconnect grounding leads from truck, clear personnel from area, and release truck to weigh and depart plant.

ADDENDUM

- No. 1 Trailer must have at the top of a single compartment truck, at least one safety relief device and three fusible disc devices.

SL 091380