

# SCP Tribune<sup>©</sup>

## Getting in Trouble with Solvents



**WARNING: Contains Tetrachloroethylene and Carbon Dioxide 124-38-9. Do not**

OSHA, very concerned about what everyone knows is the most dangerous ship repair activity (tank cleaning, of course), has several rules dealing with cargoes and solvents in tanks being cleaned. Solvents can be especially troublesome, as shown by what happened to two workers this last spring:

Rather than calling reputable tank cleaners, a skipper ordered two young crew members to muck out his fishing vessel's diesel fuel storage tank. Though they had no respirators and no one to monitor the tank's air, he gave the workers cans of toxic, tetrachlorinated brake cleaner as cleaning solvent.

Any chemical with Carbon-Chlorine bonds is toxic, and Brake Cleaner is one of the most harmful chemicals sold anywhere. (Note the image above of the label) Carbon tetrachloride (CCl<sub>4</sub>) used by the millions of pounds as dry cleaning solvent and pesticide in the 1950's was outlawed for domestic and agricultural uses many years ago because of its extreme toxicity. And now tetrachloride is coming back, this time in industrial solvents.

Chlorinated solvents attack internal organs (liver, kidney, etc.), as well as doing the usual "CNS"...Central Nervous System... damage. You pick up carbon-tetrachloroethylene both through lungs and through skin, and it winds up in your fatty tissue where it slowly leaches into the blood stream and is exhaled. For weeks after they cleaned that tank, those 2 young men were probably waking up with the taste of the solvent in their mouths.

In Subpart B, here's how OSHA says we should deal with solvents and tank cleaning: "§1915.13—*Cleaning and Other Cold Work*"

1) Testing shall be conducted by a COMPETENT PERSON to find out the dangers of solvent vapors in a space before starting tank cleaning. (Continued on the Next Page)

## TRAINING

### Shipyards Competent Person



**3-Day Initial**  
September 10-12  
October 22-24

**1-Day Updates**  
September 11  
September 24  
October 8  
October 23

### OSHA 10 Maritime

September 22-23

This 10-hour training on 29 CFR 1915 provides methods on recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces specific to the maritime industry. Please call our office (932-0206) for more information.

## Solvents, continued

- 2) Enough ventilation shall be provided to make sure that toxic vapors are kept below the Permissible Exposure Limits (as found in Subpart Z).
- 3) Testing shall be conducted by the COMPETENT PERSON AS OFTEN AS NECESSARY during cleaning to make sure that fuel or cargo vapors stay within the PEL's for toxic vapors.

(Incidentally, the modern exposure limit for tetrachloride solvent is 20ppm.)

It is so easy to simply use whatever solvent is on the bench, or whatever we find in our tool bucket. We're all guilty of this in some measure. But in Ship Repair the consequences of such corner-cutting may cause workers to have shortened lives of sickness and disability.

## Great Minds Think Alike?

Turns out they do, at least when there are "Portable Cans of Flammable Liquid" in the Ship Repair Workplace.

"Flammable Liquid" is, by definition, fuel or solvent so gassy the airspace above the liquid is explosive. Another word for a can of flammable solvent is: "BOMB!" Who wants to work around a bomb?



pierside in placarded storage.

The worst offenders are gallon cans of solvents, such as acetone or lacquer thinner or methylethyl ketone (MEK). If the Competent Person sees in the work place cans like those pictured, get them off

the vessel!



Pierside Storage

## Donations Help the Community!

When the returning fleet has surplus for a food bank, it's bad form to delay! A call to Peggy at Sound Testing and the next morning perishable items were on the line at the International District's Food Bank at St. Mary's. Special thanks to Alaska Boat's F/V BULLDOG for the frozen food donation this past month.

## Ask a Chemist



### Question:

We needed to weld D-rings on the main deck over a diesel tank that was about 40% full. The chemist had agreed to inert the tank. Which would have been better: Have the tank less than half full when the Chemist arrived or pump the diesel up to 6" from the overhead?

### Answer:

It's true that tank full of diesel uses less carbon dioxide to inert. But, carbon dioxide is cheap and costs less than 2-cents a gallon.

More important, a thin layer of inert gas on fuel is easily diluted by air from outside. Better to have a big, stable volume of carbon dioxide. Leave the tank at 40%.

## Customer Appreciation Party

Please join us for our annual Customer Appreciation Party on Friday September 19<sup>th</sup> from 3-6pm at Sound Testing's office. This is our opportunity to thank all of you for your continued support. We are also celebrating our 35<sup>th</sup> year anniversary!

We'll provide food and beverages. There will be door prizes and raffle prizes. The raffle grand prize is an Apple iPad mini! Sound Testing Chemists will be giving out raffle tickets on the job site. Simply collect the tickets throughout the month and bring them to the party. The grand prize will be drawn at 5:30PM.



### Sound Testing, Inc.

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Your Pacific Northwest Marine Chemists since 1979  
Gas-Free Inspections, Inerting, Confined Space Entry  
Fast, reliable 24/7 services.

RSVP to: Peggy 206-932-0206 or email [admin@soundtestinginc.com](mailto:admin@soundtestinginc.com)

Congrats to the winner of August's random drawing amongst the correct answers to the Newsletter Question. **DIANNA KNUE** of the **SFD** has won a \$25 gift card!

### Last Month's Quiz:

**Q:** What's the difference between a winch and a windlass?

**A:** A winch hauls or pays out line and may store it on its drum. A windlass only hauls; the line or chain is stored away from the windlass drum.

### This Month's Question:

What is the difference between a fuel's flash point and its fire point?

**Submit your answers** to [newsletter@soundtestinginc.com](mailto:newsletter@soundtestinginc.com) before September 25, 2014. All correct answers will be entered into a random drawing and one person will win a \$25 gift card!

One entry per person, please.