

The **TREND**

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Vaprotex: The Vapor Phase Corrosion Inhibitor

Lab News Update:

The numbers are in for 2008:

2,572 Water Samples

728 Corrosion Coupons

204 Deposit Samples

Average Turnaround for Lab Analysis:

3 ¼ days

Average Turnaround for Lab Reagent Orders:

1 ¾ days

NEW SAFETY TRAINING!

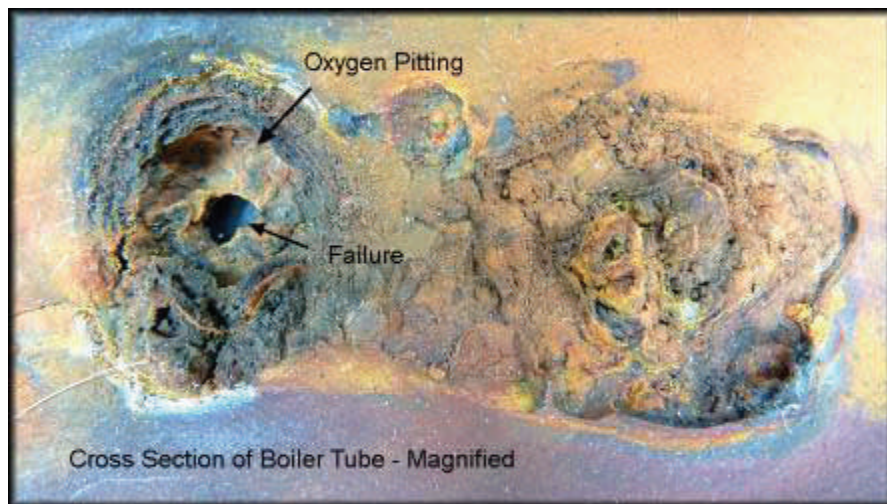
Chemtex is now offering an online safety training class covering Hazardous Communications and Classification, Personal Protective Equipment, Eye and Face Protection, Respiratory Protection, Confined Space, Product Transportation and Hazardous Material Security. Call today to sign up!

Coming up next in

The Trend

Next month's Trend article will focus on Phosphate testing with the cooling season approaching.

Do you want your boiler tubes to look like this?



NO?

Get Vaprotex and protect!



Chemtex Vaprotex 1000 contains vapor phase corrosion inhibitor (VpCI) powder in a polyvinyl alcohol (PVA) water soluble bag. The powder formulation is free of phosphates, heavy metal, nitrites and free amines. Designed for dry lay-up of boilers, Vaprotex 1000 powder protects metal in enclosed spaces. The VpCI vaporizes and adsorbs on metal surfaces, reaching all necessary areas and interior cavities.

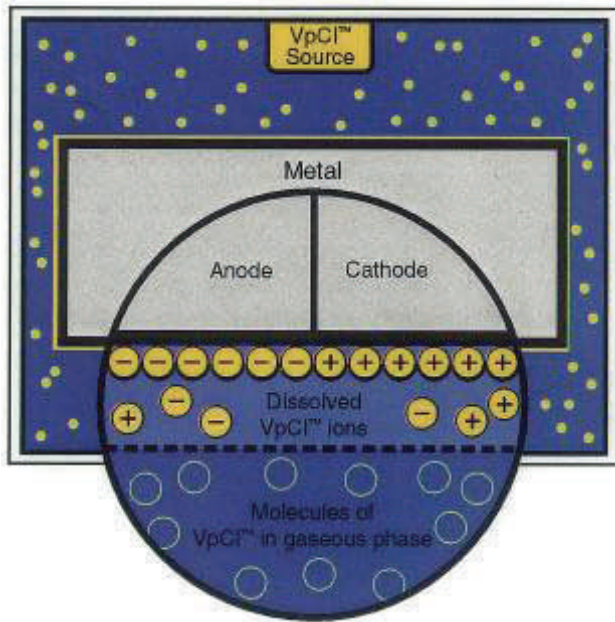


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A great deal of money and resources are spent keeping a boiler system free of corrosion. Close monitoring of chemical feed, pH

providing corrosion protection above *and below* the water line during the critical time between start-up and normal operation.



The unique feature of the Vaprotex molecule is its ability to protect the boiler without direct contact with the metal. The corrosion inhibitor migrates to metallic surfaces through the vapor phase and adsorbs on dry surfaces. The adsorption of protective ions on the surface forms a film that repels water molecules, provides a diffusion barrier for oxygen and diminishes the tendency of metal to ionize and dissolve.

and general water chemistry is necessary to protect an operating boiler system. As boiler lay-up season approaches, it is critical to continue that protection while the boiler is off-line. Lay-up for even a short period can create an internal environment susceptible to major damage in the form of oxygen corrosion. Pitting, as shown one page one, can quickly cause boiler failure, resulting in downtime for repair or replacement, with costs running into the tens of thousands of dollars.

Help your customers avoid this major expense - when they lay up their boiler for the season, protect it with Chemtex Vaprotex 1000. This new product provides complete lay-up corrosion protection for boilers in two ways. First, the unique vapor phase corrosion molecule in Vaprotex 1000 volatilizes, dispersing throughout the boiler and establishing a protective barrier over the entire metal surface. The durable barrier remains in place as long as the boiler is buttoned up, keeping the metal safe from the destructive effects of corrosion. When the boiler is refilled at start-up, Vaprotex 1000 dissolves in the water,

Vaprotex 1000 is more effective *and* convenient-to-use than old-fashioned desiccants like silica gel. Desiccants remove moisture from internal surfaces from the boiler; once saturated, the desiccant will release moisture back into the air, creating the corrosive environment it was set out to prevent. Another drawback is that desiccants *must* be removed from the boiler prior to refill to prevent scale formation and other problems at start-up. With Vaprotex 1000, you simply slit the water-soluble bag to expose the corrosion inhibitor, place it in the boiler and forget about it. The boiler is completely protected until the regular water treatment chemicals are applied and normal operation is resumed.

Tower Too

The capabilities of the Vaprotex molecule are not restricted to just boiler applications. Cooling tower systems are particularly susceptible to corrosion during seasonal storage or lay-up. If piping is kept filled, stagnant water causes breaks in the corrosion inhibitor film, leading to localized attack by oxygen and other corrosive agents. If the piping is drained,

water remaining in low spots promotes corrosion and flash rusting.

Vaprotex 2000 is the answer for cooling system lay-up. Containing the unique Vaprotex molecule, it provides exceptional corrosion inhibition throughout the tower piping system during the lay-up period.

Vaprotex 2000 can be used for a flushing-type lay-up or for wet lay-up. With either application, multiple metals are protected including mild steel, galvanized steel, copper and brass. Packaged in convenient water-soluble bags, Vaprotex 2000 is added to the system and circulated for at least 10-12 hours. After that time, the system may be drained to complete the flushing lay-up or left as a wet lay-up. All valves on the inlet and outlet should be tightly closed to remain air and water-tight for storage. The Vaprotex molecule protects not only in the liquid phase, but also in the vapor phase and the interface between the water and vapor. This unique approach enables the Vaprotex 2000 to protect even small crevices from corrosion and other areas where the water does not reach or where the water is left standing.

Beyond water treatment, the applications for the Vaprotex molecule are extensive. Markets that benefit from this technology include steel, automotive, industrial, construction, electronic, energy, aeronautic, consumer and military. Applications include packaging, metalworking, cleaning, lubricants, oil additives, storage and of course lay-up. Contact Chemtex technical support for specific usage in unique areas for your opportunity to provide value-added service.

The new Chemtex Vaprotex line of products provides a new line of defense, protecting valuable boiler and cooling system components beyond traditional water treatment chemicals.

Boiler Layup Corrosion Inhibitor

Vaprotex 1000

CHEMTEX
INTERNATIONAL CHEMTEX CORPORATION

"An ISO Certified Company"

Boiler Layup Corrosion Inhibitor

- Provides active corrosion protection during dry layup
- Convenient – leave in boiler at start-up
- Positive protection above and below water level

Vaprotex 1000 is a vapor phase corrosion inhibitor that volatilizes and forms a durable protective film on all internal boiler surfaces, providing complete corrosion inhibition during long-term boiler lay-up and storage. Unlike silica gel and other desiccants, Vaprotex 1000 does not need to be removed when the boiler is refilled at start-up. Instead, Vaprotex 1000, which is packaged in a water-soluble plastic casing, dissolves in the water and provides corrosion protection both above and below the water level.

DOSAGE

One bag protects 1000 gallons of water-holding capacity. Consult your Chemtex representative for specific application instructions.

APPLICATION

When boiler is drained and cooled, remove and discard the outer plastic Vaprotex 1000 packaging. Slit the inner plastic liner, place in boiler and seal all openings to the boiler waterside. When boiler is refilled prior to start-up, Vaprotex 1000 is left in place, where it dissolves in the boiler water, providing corrosion protection during start-up period.

PRODUCT DATA

FORM:	White powder
pH (1% aqueous):	6.5 – 6.9
SPECIFIC GRAVITY:	N/A

HANDLING

Flush eyes with abundant water. Consult a physician. Wash skin with soap and water. If ingested, do not induce vomiting. Call a physician. In case of discomfort by vapors or dusts, move to a ventilated area. Consult Material Safety Data Sheet for further safety information.

PACKAGING

4 lb. fiberboard tube

Original

"Serving Water Treatment Needs in Industry"

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Cooling System Off-Season Corrosion Inhibitor

CHEMTEX
INTERNATIONAL CHEMTEX CORPORATION

Vaprotex 2000

"An ISO Certified Company"

Cooling System Layup Corrosion Inhibitor

- Provides active corrosion protection during long-term layup
- Prevents pipe slag formation
- Positive protection above and below water level
- Multi-metal protection

Vaprotex 2000 is a vapor phase corrosion inhibitor that provides complete corrosion protection to condensers, heat exchangers and cooling system piping during seasonal layup or long-term storage. Vaprotex 2000 protects system metals in either wet or dry layup conditions. Regular use of Vaprotex 2000 during seasonal layup reduces or eliminates the development of pipe slag and its attendant problems and makes start-up easier and more trouble-free.

DOSAGE

One bag treats 250 gallons of system water. Consult your Chemtex representative for specific application instructions.

APPLICATION

Dissolve the prescribed amount of Vaprotex 2000 in cooling system water and circulate system for 10-12 hours prior to shutdown. For dry lay-up, drain system, then tightly close all system openings to maintain product vapors in system. For wet layup, simply shut system down and keep openings tightly closed.

PRODUCT DATA

FORM:	White powder
pH (1% aqueous):	10.0 – 12.0
SPECIFIC GRAVITY:	N/A

HANDLING

Flush eyes with abundant water. Consult a physician. Wash skin with soap and water. If ingested, do not induce vomiting. Call a physician. In case of discomfort by vapors or dusts, move to a ventilated area. Consult Material Safety Data Sheet for further safety information.

PACKAGING

4 X 2.2 lb. bags/box

Original

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