



Frequently Asked Questions about Water Treatment Products

1. Why do I need treated water?

Treated water solutions eliminate problems associated with varying makeup water qualities throughout the world. 460-VTE104 is deionized water with a complete corrosion inhibitor package and preservative. This solution addresses four common challenges with cooling systems: mineral scale, corrosion, fouling and microbiological growth.

2. What happens if I don't use it?

Your system could experience one or more of the following issues: corrosion, microbiological growth, fouling and scaling. Copper and other system metallurgies may corrode at accelerated rates without corrosion inhibitor treatment. Bacteria can develop in the cooling loop and will result in loss of heat transfer and generation of corrosive by-products. Fouling occurs when corrosion products and biomasses plug small orifices and piping resulting in reduced flow rates and heat transfer. Use of municipal waters as makeup source will introduce contaminants that will result in mineral scales on system piping, especially areas of heat transfer.

3. Are there any instances when I shouldn't use 460-VTE104?

460-VTE104 is not freeze protected, so applications where this is required are not recommended with the standard product. Contact Vette Corp if freeze protection is required: datacom_facilities@vettecorp.com

4. If I were using deionized water, why would I need these products?

The deionization process removes many of the minerals that can result in mineral scale; however the water is then so pure it will leach metal from the pipe walls. Although scale potential is reduced, deionized water becomes very corrosive and can still develop bacteria problems and fouling. Treatment is required to address these areas.



5. If I am using EG/PG do I still need water treatment?

Both Ethylene Glycol and Propylene Glycol offer freeze protection and some corrosion protection, however these glycols will degrade over time. That degradation forms corrosive glycolic acid. Also, under certain conditions, glycol can act as a nutrient for bacteria growth. Finally, corrosion inhibitors in “inhibited” glycol solutions do not target the mixed metallurgy commonly found in the process critical closed loops, including: copper, aluminum, stainless and carbon steel. Unless freeze protection is required, glycols are not recommended since they inhibit heat transfer and do not address complete system protection.

6. Will the use of treated water affect my heat transfer?

If used as directed, a treated water solution will improve heat transfer by eliminating scale, microbiological growth, fouling and corrosion.

7. What is the shelf life of the water treatment products after opening?

One Year.

8. What do I do if my treated water spills?

Vette’s water treatment products are pre-mixed to concentrations that are very safe and not hazardous. As volumes are typically low, any accidental spills can be handled at the site using absorbent materials. Please refer to Section 6 of the product Material Safety Data Sheet (MSDS) that is included with each kit for additional information.

9. What is a Material Safety Data Sheet?

Material Safety Data Sheet (MSDS) is required for all chemicals in the United States. The MSDS includes product information, hazard identification, regulatory information, safety and disposal information, shipping information, toxicological information etc.

10. Can I use the treated water with a particulate filter

Yes. Particulate filters >0.5 micron will not remove any of the treatment chemistry. Additionally, systems that may have been compromised will benefit from flushing and filtration.

11. Can I use the treated water with a deionizing filter?

No. Deionizing filters may remove some of the treatment chemistry.

12. Do I need to mix the water treatment products with water?

No. 460-VTE104 is premixed for optimal performance and can be added directly to the cooling system from the original containers.



13. What are the safety precautions for installation?

Use the proper personal protective equipment (PPE) that is specified in the MSDS is recommended for each application. Gloves and goggles are recommended when adding chemical to the system.

14. How do I determine how much to put in?

Refer to the Cooling Distribution Unit (CDU) [installation manual](#) for details on filling the system, or call your Vette representative for assistance.

15. Can I add treated water while the unit is operating?

Yes, the CDU has a built-in fill system that can be used without interrupting unit operation. Refer to the CDU [installation manual](#) for the proper procedures.

16. How do I dispose of the empty pails?

Empty pails should be tripled rinsed and disposed of in regular trash.

17. Do I have to prepare the system before adding the treated water?

Piping systems may not be clean after manufacturing and installation. We recommend that the system be filled with 460-VTE2567 and circulated for 4-24 hours, drained completely prior to filling with treated water. 460-VTE2567 is an alkaline cleaner that removes dirt, greases, oils and bacteria that remain in the system.

18. How do I know when to change my treated water solution?

Water quality should remain clear throughout the treatment period; a change in water color may indicate a system problem and a flush and refill needed.

19. What is the recommended frequency of change?

Generally speaking, 460-VTE104 should be reapplied every 12 months for optimal performance. Follow the instructions to flush and refill the system or contact your Vette representation to schedule service.

20. What happens if I do not change the fluid after 12 months?

Going past the 12-month interval increases the risk of microbiological growth and system corrosion. Biocides and inhibitors are consumed over time leaving the system unprotected.

21. Do I have to do anything to maintain the correct inhibitor mix?

No. The product is pre-mixed and a closed loop system normally will not experience fluid loss.



22. What happens if I lose fluid and I need to add make up water?

If water loss occurs, top off with 460-VTE104. Do not makeup with municipal or tap water in the event of system water loss. This will result in dilution of inhibitors and may also introduce bacteria to the system.

23. Where should I store the treated water containers?

Spare pails should be stored in a cool (50-70 °F), dry location. Pails should not be exposed to sunlight for extended periods.

24. How do I know if the water treatment is working?

System reliability, steady flow rates and consistent heat transfer are indicators of system performance. Analytical testing can also confirm corrosion, scale and microbiological control.

25. Do you have a simple test method that tells me if it is working?

Analytical testing procedures are available from Vette Global Services (VGS) for water treatment solutions. Contact your Vette representative to purchase a performance testing service.

26. How do I know if there is a problem?

Reduction in flow rates, change in water clarity and/or reduction in heat transfer can all be indicators of system problems.

27. Who do I contact if I have a problem?

Contact your Vette representative, this will ensure best practices are applied consistently to all liquid cooling applications.