



**ADVANCED  
DISINFECTION**

**TECH BRIEF**



# **SANITIZATION SYSTEM ASSESSMENT WORKSHEET**

**FOR PURE WATER SYSTEM STORAGE TANK  
AND DISTRIBUTION LOOP DISINFECTION**

**SIMPLE. PROVEN.  
OZONE TECHNOLOGY.**

# IS YOUR SYSTEM READY FOR OZONE DISINFECTION?

Improving the efficiency of your pure water sanitization systems can dramatically reduce overhead costs, minimize downtime and increase production with better effectiveness. Save time with shorter cleaning cycles, lower energy costs by not heating water, reduce water use with fewer rinses and reuse, and eliminate the need for storage and handling of chemicals with our disinfection solutions. Assess your existing system with the following questions.

## 1. Have you had a microbial issue with your pure water system?

- Yes     No     Don't Know

## 2. How often do you sanitize now?

- Daily     Weekly     Monthly  
 Twice Per Year     Annually     Never

## 3. What do you use?

- Chemical     Heat     Ozone  
 Nothing

## 4. Is it a validated system?

- Yes     No     Don't Know

## 5. How much do you spend per sanitization?

- Less Than \$5K     \$5K - \$10K  
 \$10K - \$20K     More Than \$20K  
 Other \_\_\_\_\_

## 6. Select the 3 most important improvements needed in your system.

- Better Microbial Efficacy  
 Reducing Sanitizing Time  
 Reducing Water Usage  
 Reducing Energy Usage  
 Reducing Waste Discharges  
 System Automation

## 7. What is the tank size?

- 100 - 500 gallons     500 - 1000 gallons  
 1000 - 3000 gallons     000 - 6000 gallons  
 More Than 6000 gallons

## 8. What is the distribution loop distance?

- Overall Length Less Than 300 feet  
 Overall Length More Than 300 feet

## 9. Is the tank/system inside or outside?

- Inside     Outside

## 10. What are the tank, piping, filter and diaphragm materials?

- Stainless Steel (304/316)     CPVC     PVC  
 Polyethylene (PP)     Polypropylene (PE)  
 Teflon (PTFE)     Kynar (PVDF)  
 Fiber-reinforced Plastic/Polymer (FRP)  
 Don't Know / Other \_\_\_\_\_

## 11. What are the seal and valve materials?

- Ethylene Propylene Diene Terpolymer (EPDM)  
 Teflon (PTFE)     Viton (FKM)  
 Nylon     Neoprene (Polychloroprene)  
 Nitrile Rubber (Buna N, NBR)  
 Natural Rubber  
 Don't Know / Other \_\_\_\_\_

## 12. Do you have a UV system now?

- Yes     No     Don't Know

## Any special system configurations or application requirements?

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# MATERIAL COMPATIBILITY WITH OZONE

MATERIAL	RATING (OZONE CONCENTRATION NOT SPECIFIED)	MATERIAL	RATING (OZONE CONCENTRATION NOT SPECIFIED)
ABS Plastic	B <sup>1</sup> - Good	Kalrez	A <sup>1</sup> - Excellent
Acetal (Delrin®)	C - Fair	Kel-F®	A - Excellent
Aluminum	B - Good	LDPE	C <sup>1</sup> - Fair
Brass	B - Good	Magnesium	D - Severe Effect
Bronze	B - Good	Monel	C - Fair
Buna N (Nitrile)	D - Severe Effect	Natural Rubber	D - Severe Effect
Butyl	A - Excellent	Neoprene	C - Fair
Carbon Steel	C - Fair	Nylon	D - Severe Effect
Cast Iron	C - Fair	PEEK	A - Excellent
ChemRaz (FFKM)	B - Good	Polyacrylate	B - Good
Copper	A - Excellent	Polycarbonate	B <sup>1</sup> - Good
CPVC	A - Excellent	Polyethylene	C - Fair (in air)
Durachlor - 51	A - Excellent	Polysulfide	B - Good
Durlon 9000	A - Excellent	PTFE (Teflon®)	A - Excellent
EPDM	A - Excellent	PVC	B - Good
EPR	A - Excellent	PVDF (Kynar®)	A - Excellent
Epoxy	A <sup>1</sup> - Excellent	Santoprene®	D - Severe Effect
Ethylene - Propylene	A - Excellent	Silicone	A - Excellent
Fluorocarbon (FKM)	A - Excellent	Steel - Galvanized	C - Fair (in water) A - Excellent (in air)
Fluorosilicone	A - Excellent	Steel - Mild, HSLA	D - Severe Effect
Glass	A - Excellent	Stainless Steel - 304	B - Good
Hastelloy-C®	A - Excellent	Stainless Steel - 316	A - Excellent
HDPE	C <sup>2</sup> - Fair	Titanium	A - Excellent
Hypalon®	A - Excellent	Tygon® (E-3603)	A - Excellent
Hytrel®	C - Fair	Viton®	A - Excellent
Inconel	A - Excellent	Zinc	D - Severe Effect

Source: [www.coleparmer.com](http://www.coleparmer.com)

## Ratings - Chemical Effects

- A Excellent
- B Good - Minor effect, slight corrosion or discoloration
- C Fair - Moderate effect, not recommended for continuous use. Softening, loss of strength, swelling may occur
- D Severe Effect - Not recommended for ANY use
- N/A Information not available

## Explanation of Footnotes

- 1 Satisfactory to 72°F (22°C)
- 2 Satisfactory to 120°F (48°C)

## Warning

The information in this chart is to be used ONLY as a guide in selecting equipment/component for appropriate chemical compatibility.

Different material react differently to wet or dry ozone. DRY ozone has been dried to -60°F (-51°C) or lower, WET ozone may be dissolved in liquid or include moisture. Contact Pacific Ozone Technology to determine if your material is compatible.

## Danger

Variation in chemical behavior during handling due to factors such as temperature, pressure, and concentrations can cause equipment/component to fail, even though it passed an initial test.



## QUALIFIED PERFORMANCE, PRECISION CONTROL AND FOREVER RELIABILITY

Packaged Ozone Disinfection Systems generate ozone on-site (no storage) and include the ozone generator, feed gas (usually oxygen concentrator and/or air dryer), injection mass transfer, mixing and gas management devices, ozone monitors and control (ambient and dissolved ozone monitors), and an ultraviolet (UV) for dissolved ozone destruction. Compressed air is used to generate the feed gas. The ozone generator uses corona discharge to generate ozone from oxygen in the feed gas. Ozone gas is transferred into the water stream using pressure with injection mass transfer. The ozone gas dissolves into the water to rapidly reach all wetted parts of the water system to rapidly disinfect and destroy microbes.

## PACKAGED OZONE SYSTEMS

### SUMMIT K1 OZONE DISINFECTION SYSTEM

Designed for a quick and seamless integration into your pure water system. The K1 provides an efficient production and delivery of 18-70g/h ozone with the latest safety features and is system commission and qualification ready.

- Compact Stainless Steel Construction
- Sanitary Design
- Efficient 18-70g/h Production & Delivery
- Ambient Ozone Detector Standard
- Easy-to-use Software & Large Touch Screen
- Auto-precision DO3 Control
- System Commission & Qualification Ready



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