

# Temperature Standards for Dishmachines

## High Temperature Machine

- **150°F minimum wash temperature**
  - Ideal: 160 – 165°F; avoids baking soils on to dishes
  - Wash tank temperature maintained by separate heating source
- **180°F minimum rinse temperature**
  - 195°F maximum allowed by NSF
  - “Booster heater” heats incoming water to 180°F
    - 110°F incoming to 180°F = “70 degree rise”
    - 140°F incoming to 180°F = “40 degree rise”
- **Must pass NSF Heat Unit Equivalent (HUE) Test**
  - Plate temperature measured every second during cycle
  - HUE value corresponding to temperature measurement
    - Example: 150°F = 6.5 HUE, 160°F = 91.9, ≥165°F = 346.8 HUE
  - Acceptance criteria: 3600 cumulative HUE minimum

## Low Temperature Machine

- **120°F minimum wash temperature**
  - 140°F recommended
- **Rinse with sanitizing solution**
  - 50 ppm minimum sodium hypochlorite (NaOCl)
    - 120°F minimum rinse temperature, 140°F recommended
    - 75°F minimum allowed for “glasswashers”
  - 12.5 – 25 ppm iodine solution (iodiphor) (75 °F minimum)
  - Other sanitizing solutions per Code of Federal Regulations, Title 21, Part 178, “Indirect Food Additives: Adjuvants, Production Aids, and Sanitizers”
- **7 seconds of minimum length of rinse sequence with sanitizer**

# Testing and Logging Methods

## Best Practices

- ▲ Daily check for working temperature and pressure gauges on the wash and final rinse cycle
  - Once a month, independently verify that the gauges are working properly using:
    - Irreversible temperature indicator
    - Thermometer placed in the wash or rinse cycle
- ▲ Daily record of temperature values shown on gauges in a log kept by managers
  - High Temp Machine: Check temperature of final rinse cycles and record on log
  - Low Temp Machine: Check temperature of final rinse cycles AND verify chlorine concentration of final rinse cycle using test strips.

# Best Practices for Quaternary Sanitizer

- ▲ A quaternary sanitizing solution shall have a minimum **temperature of 75°F or 25°C** for all applications\* (in a 3 compartment sink, dishmachine, or spray bottle)
- ▲ Refer to **product label for contact time** on surface (most quaternary based sanitizers require minimum **60 seconds** of contact time)
- ▲ Use life for exposed solutions, including sinks, is **4 hours** or if solution is **visibly soiled\***
- ▲ **Use life of spray bottles** containing quaternary sanitizer solution is **7 days** or per product label

	Example	QUATERNARY Disinfectant or Sanitizer
WORKING SOLUTION	Mop Bucket	same day
CLOSED SYSTEM	Buddy Jug	30 days
SEMI-CLOSED SYSTEM	Spray Bottle	7 days

# Guidelines for Testing Quat Solution



## Oasis™ 146 Multi-Quat Sanitizer

NO-RINSE QUAT SANITIZER

DESINFECTANTE CUATERNARIO NO REQUIERE ENJUAGUE

### 150 - 400 ppm Quat Range

EPA-registered sanitizer for pre-cleaned use on hard, non-porous food prep surfaces and ware is effective against foodborne organisms as listed on product label.

Oasis 146 Multi-Quat Sanitizer is a no-rinse quat sanitizer that is effective across a dilution range of 0.26 - 0.68 oz. per gallon of water.

### Rango de uso de 150 - 400 ppm

Desinfectante con certificación EPA para limpieza -previa al uso- de utensilios de cocina y superficies duras no porosas destinadas a la preparación de alimentos. Elimina los organismos transmitidos por alimentos como lo indica la etiqueta del producto.

Oasis 146 Multi-Quat Sanitizer es un desinfectante cuaternario, que no requiere enjuague y que es efectivo en un rango de dilución de 0.26 - 0.68 onzas por galón de agua.

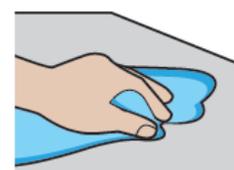
#### Three compartment sink sanitizer

Desinfectante para fregadero de tres compartimentos



#### Food contact surface sanitizer

Desinfectante para superficie en contacto con alimentos



### Directions For Use

Apply Oasis 146 Multi-Quat Sanitizer at proper use solution. Expose all surfaces of equipment, ware or utensils to the sanitizing solution for a period of not less than one minute. Air dry. Please refer to product label for complete directions for use.

### Instrucciones de uso

Aplice Oasis 146 Multi-Quat Sanitizer siguiendo el uso adecuado. Exponga todas las superficies del equipo, el menaje de cocina o los utensilios a la solución desinfectante por un periodo de tiempo no inferior a un minuto. Deje secar al aire.

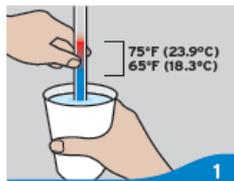
Por favor, revise la etiqueta del producto para ver las instrucciones de uso completas.

### Sanitation Range Testing

Prueba del rango de desinfección



For testing Quaternary Sanitizers  
Usarse con desinfectantes cuaternarios



Testing solution should be at room temperature - 65°F - 75°F (18.3°C - 23.9°C).

La prueba de la solución debe realizarse a temperatura ambiente, es decir, 65°F a 75°F (18.3°C - 23.9°C).



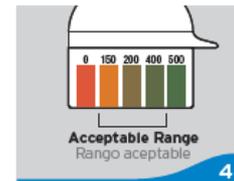
Withdraw and tear off approximately 2 inches of test paper from dispenser. Dip test paper for 10 seconds in test solution. Don't shake.

Retire y desprenda aproximadamente 2 pulgadas de papel del dispensador. Moje el papel durante 10 segundos. No lo sacuda.



Compare colors immediately with colors on the test paper package to determine ppm. ALWAYS COMPARE AGAINST PACKAGE SCALE.

Compare inmediatamente los colores con los colores en el paquete de la banda de prueba para determinar la concentración en términos de partes por millón (ppm). SIEMPRE REALICE LA COMPARACIÓN CON LA ESCALA DEL PAQUETE.



Testing solution should be between 150 - 400 ppm.\*

La solución de prueba debe estar entre 150 a 400 ppm.\*

\*ppm = parts per million  
\*ppm = partes por millón

Everywhere It Matters.™

EPA Reg. No. 1677-198 / Reg. N.º 1677-198 de EPA

1 800 35 CLEAN

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