

USES AND EFFECTIVENESS - Effervescent Chlorine Tablet (ECT)

PRODUCT APPLICATIONS: 3.2g Effervescent Chlorine Tablets:

- Private and public health area disinfectants:
 - Non metallic medical and veterinary appliances
 - Mops, cloths and glassware
 - General disinfection
 - Body fluid spills
 - Drains, sinks, W.C. pans, W.C.'s
 - Laboratory discard jars
 - Conditions of heavy soiling

- Veterinary hygiene:
 - General hygiene
 - Conditions of heavy soiling

- Food and feed disinfectants:
 - Food preparation areas; non metallic equipment, containers, consumption utensils, work surfaces, stainless steel (catering grade)
 - Baby bottle sterilisation
 - Disinfection of salads, vegetables, non-peelable fruit

- Drinking water disinfection:
 - Chlorination of animals drinking water
 - Emergency water purification

Use dilutions, including descriptions of the proposed method of application.

DILUTION TABLE 3.2g ECT		
1 TABLET IN	GIVES AVAILABLE CHLORINE OF	TYPICAL USES
100ml	10,000 ppm	Body fluid spills & conditions of heavy soiling
400ml	2,500 ppm	Non metallic medical & veterinary appliances & laboratory discard jars
1 litre	1000 ppm	General disinfection
2.5 litres	400 ppm	WC's, drains, sinks
5 litres	200 ppm	Food preparation areas
8 litres	125 ppm	Baby bottle sterilisation
10 litres	100 ppm	Cloths & mops

Guidelines for the use of 3.2g ECT for glassware, mops and cloths:

- After cleaning mops or cloths, dissolve 1 tablet in the recommended amount of water to produce 100ppm of available chlorine.
- Immerse the cloth or mop in the solution for at least 30 minutes. Do not leave overnight.

Guidelines for the use of 3.2g ECT for food preparation surfaces and food processing equipment:

- Remove loose debris with a clean, loosely-folded cloth.
- Wash with a hot neutral detergent solution and cloth. An abrasive nylon pad may also be useful.
- Rinse with hot water and a clean cloth.
- Drop one 3.2g ECT into the recommended amount of water, preferably warm (40 °C) to provide 200 ppm of available chlorine. (Warm water assists the process of disinfection and also speeds up the tablet dissolution time.)

- Thoroughly wet the cleaned surface with the disinfecting solution by the most suitable means, e.g. trigger spray or disposable cloth.
- Leave wet for a minimum of 3 minutes. (Providing the surface is thoroughly clean this is sufficient contact time for positive disinfection.)
- Rinse off with fresh, clean water.
- Allow to air-dry or use disposable paper towel.

IN THE CASE OF DANGEROUS OR ELECTRICAL EQUIPMENT (E.G. SLICING MACHINES), PRELIMINARY SAFETY PROCEDURES AND FINAL SAFETY CHECKS WILL BE REQUIRED, SEVERAL TYPES OF EQUIPMENT WILL NEED PARTIAL OR COMPLETE DISMANTLING TO ENSURE EFFECTIVE CLEANING AND DISINFECTION.

WARNING: TO BE EFFECTIVE, DISINFECTANT SOLUTIONS MUST BE MADE UP FRESH EACH DAY AND BE OF CORRECT CONCENTRATION.

Guidelines for the preparation of 3.2g Effervescent chlorine tablets for washing salads, vegetables and non-peelable fruit.

Where Fresh Produce is Consumed within 24 Hours of Washing:

- Remove as much dirt and debris from the vegetables and fruit as possible by thoroughly rinsing in cold fresh drinking water.
- Prepare the MACLIN's 3.2g ECT solution by adding the appropriate quantity of tablets to the recommended volume of water to give the required amount of free available chlorine in solution according to the recommended contact time. Where possible, try to ensure that the temperature of the rinse water is greater than that of the fresh produce (ideally 10°C higher). In practice potable tap water from the mains supply is satisfactory.
- Add the vegetables or fruit to the solution for the recommended contact time. Ensure produce is completely submerged. Agitate produce to remove excess air bubbles.
- Fruit or vegetables should be eaten as soon as possible after washing. It is preferable not to rinse after washing, except where the food will be consumed in <2 hours, in which case rinse with clean, fresh potable drinking water. If storage is required, remove the produce from solution and shake off excess liquid. If possible, spin dry. Place in a sealable polythene bag or an equivalent air-tight container and store under refrigerated conditions at 4 to 8°C for as short a period as possible (<24 hours).

- Some produce, which is grown under heavily contaminated conditions, i.e. cress, peppers, requires the solution strength to be doubled.

Where storage of Fresh Produce is Required for >1day

- Remove as much dirt and debris from the vegetables and fruit as possible by thoroughly rinsing in cold fresh drinking water.
- Prepare the ECT solution by adding the appropriate quantity of tablets to the recommended volume of water to give the required amount of free available chlorine in solution according to the recommended contact time. Where possible, try to ensure that the temperature of the rinse water is greater than that of the fresh produce (ideally 10 °C higher). In practice potable tap water from the mains supply is satisfactory.
- Add the vegetables or fruit to the solution for the recommended contact time. Ensure produce is completely submerged. Agitate produce to remove excess air bubbles.
- Remove from solution and rinse with potable water. Shake off as much excess water as possible from the produce. If possible, spin dry. Place on clean dry trays and store under refrigerated conditions at 4 to 8 °C for as short a period as possible.
- Immediately before use, remove the fresh produce from storage and rinse with potable water.
- Some produce, which is grown under heavily contaminated conditions, i.e. cress, peppers, requires the solution strength to be doubled.

Additional information for fruit and vegetable handling guidance has been provided by the Sandwich and Salad Association (Appendix 2, 2001).

Number of application times and contact times and, if necessary or applicable, all special and specific information relevant to the geographical and climatic fluctuations or necessary waiting times for the protection of human beings or animals:

DISINFECTION OF SALADS, VEGETABLES, NON PEELABLE FRUIT.

Instructions for use of 3.2g ECT.		
CATERING: Where there is only a short period of time between preparation and consumption of the food. ppm=Parts Per Million		
No of tablets per 40 litres of water:	Gives available chlorine of:	Recommended contact time:
1	25 ppm	15 mins
2	50 ppm	10 mins
3	75 ppm	5 mins
IN FLIGHT CATERING & THE SANDWICH MAKING INDUSTRY: Where there is a lengthy time lapse between preparation and consumption.		
No of tablets per 40 litres of water:	Gives available chlorine of:	Recommended contact time:
2	50 ppm	15 mins
4	100 ppm	10 mins
6	150 ppm	5 mins

Instructions for the use of Tablets in Hospitals:

MACLIN's 3.2g ECT			
1 Tablet in	Gives av. cl. of	Typical uses	Recommended contact time
0.1 Litre	10 000 ppm	Body fluid spills	2 minutes
0.4 Litre	2 500 ppm	Laboratory discard jars	Overnight
1 Litre	1 000 ppm	General disinfection	15 minutes
2.5 Litres	400 ppm	Drains, sinks, W.C. pans	--
8 Litres	125 ppm	Baby bottles & teats	At least 30 minutes
10 Litres	100 ppm	Cloths, mops, glassware	At least 30 minutes, do not leave overnight

The dilutions for Catering applications are:

1 tablet in 5 litres of water to give 200 ppm.

5 Litres	200 ppm	Food preparation areas, processing equipment	---
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