



## SANITABS

# Effervescent Chlorine Sanitising Tablets Technical Information

Sanitab tablets are an economical chemical preparation in a pelletised form that allows the rapid and easy preparation of chlorine solutions, of known strength, without the need for weighing or measuring equipment.

Sanitab tablets are manufactured using sodium dichloroisocyanurate (NaDCC) and inert effervescent compounds, which only produces hypochlorous acid when added to water and thus retain their potency and effectiveness during storage unlike liquid preparations such as bleach and which do not suffer from the corrosive and damaging effects of bleach type products.

They are a simple and effective treatment for sanitising applications requiring chlorine dosage. They are well established in the cleaning industry for powder detergent/sanitizer complexes and for sanitization of swimming pools. They can also be used in applications where Health or Local Government Authorities have prohibited the use of liquid bleach.

Three tablet versions are available:

- Sanitab 2.5g - a tablet that contains 1.7g of NaDCC
- Sanitab 4.72g - a tablet that contains 2.5g of NaDCC
- Sanitab Plus - a 3.25g tablet that contains 1.7g of NaDCC and a small amount of surfactant.

Primary features attributable are:

- Simple, convenient and effective to use;
- Do not lose potency or effectiveness during storage, stable for up to 5 years;
- Yield consistent levels of available chlorine;
- Safer and less corrosive than liquid bleach;
- Easy to store and distribute, no spillage or leak problems;
- Provides greater biocidal properties, strength for strength, than liquid bleach, especially in the presence of soiling;
- Eliminates need for weighing and measuring.

## Applications



Certificate No. GB06/69741



Certificate No. GB06/69740

CE  
0120

Certificate No. GB06/69739

Safer  
Solutions  
For Industry

Sanitab tablets can be successfully used for a wide variety of applications where chlorine sanitisation is required (see 'Directions for Use' below for further details).

## **Compatibility**

Sanitab tablets offer significant benefits from a corrosivity standpoint when compared with liquid bleach.

A summary of corrosion test results for a solution with an available chlorine content of 1000 ppm with different metals after 4 exposure periods of 25 hours each is presented in the following table:

| <b>Metal</b>               | <b>Water (control)</b> | <b>Sanitabs</b>  | <b>Sodium hypochlorite</b> |
|----------------------------|------------------------|------------------|----------------------------|
| Mild Steel                 | Heavy tarnish          | Heavy tarnish    | Pronounced corrosion       |
| Galvanised Steel           | Mild tarnish           | Mild tarnish     | Moderate corrosion         |
| Copper                     | Mild tarnish           | Moderate tarnish | Moderate corrosion         |
| Brass                      | No effect              | Heavy tarnish    | Moderate tarnish           |
| Aluminium                  | Mild tarnish           | Mild tarnish     | Heavy tarnish              |
| Stainless Steel – type 316 | No effect              | No effect        | No effect                  |

## **Health and Safety**

Sanitab tablets are classified as Harmful and Irritant to eyes and respiratory system. Common sense precautions should be observed when using this product.

Users should avoid contact of dusts with eyes and breathing vapours.

The product is toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment.

The product should not be allowed in contact with acids as toxic gas will be released.

See Material Safety Data Sheet for details.

## **Typical Properties**

| <b>Product</b>                      | <b>Sanitab 2.5</b>                                | <b>Sanitab 4.72</b>                               | <b>Sanitab Plus</b>                               |
|-------------------------------------|---|---|---|
| Appearance                          | White flat bevelled tablets                       | White flat bevelled tablets                       | White flat bevelled tablets                       |
| Tablet size                         | 2.5 g per tablet                                  | 4.72 g per tablet                                 | 3.25 g per tablet                                 |
| NaDCC Content                       | 1.7 g per tablet                                  | 2.5 g per tablet                                  | 1.7 g per tablet                                  |
| Odour                               | Chlorine odour                                    | Chlorine odour                                    | Chlorine odour                                    |
| Density, g/cm <sup>3</sup> at 20 °C | 1.10  | 1.10  | 1.10  |
| Solubility in water                 | Complete  | Complete  | Complete  |
| pH                                  | 5.0 to 6.0 when dissolved at recommended dilution | 5.0 to 6.0 when dissolved at recommended dilution | 5.0 to 7.0 when dissolved at recommended dilution |
|                                     |   |   |   |

Sanitab tablets have a shelf life of not less than 5 years when stored in original containers, in a cool, dry, well-ventilated area between 5 °C and 35 °C.

### **Microbial Activity:**

Disinfecting solutions prepared from the active ingredients in Sanitabs are fast acting and have a complete spectrum of biocidal activity. Bacteria, bacterial spores, algae, fungi, protozoa and viruses are all sensitive to their effects.

The following publications are available to demonstrate effectiveness:

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2. Lowbury, E I L, Et Al, 1981, *Control of Hospital Infection*, 2 pp 63-64
3. Dychdala, 1968, *Disinfection, Sterilisation and Preservation*, 2<sup>nd</sup> Edition
4. Bloomfield, S F and Miles G A, 1979, The antibacterial properties of sodium dichloroisocyanurate and sodium hypochlorite formulations, *Journal of Applied Bacteriology*, 46, pp 65 – 73
5. Hopkins, R 1981, Evaluation of a new disinfectant and the antigenicity and morphology of Hepatitis B surface antigen, *Medical Laboratory Sciences*, 38 pp 419 – 422
6. TRUEMAN, J.R. Inhibition and Destruction of Microbial Cell, 1971, 137-183.
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8. COATES, D. Comparison of Sodium Hypochlorite and Sodium Dichloroisocyanurate Disinfectants: Neutralisation by Serum. *Journal of Hospital Infection*, 1988, 11, 60-67
9. DYCHDALA, G.R. Chlorine and Chlorine Compounds in: *Disinfection, Sterilisation and Preservation*, 3<sup>rd</sup> Edition, Ed. S.S. Block, Philadelphia, Lea and Febiger, 1983, 157-182.
10. COATES, D. Comparison of the Tarnishing and Corrosive Effects on Metals of Sodium Dichloroisocyanurate (NaDCC) and Sodium Hypochlorite.
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13. LIU, O.C., SERAICHEKAS, H.R., AKIN, E.W., BRASHEAR, D.A., KATZ, E.L. and HILL Jr., W.J. Relative Resistance of Twenty Human Enteric Viruses to Free Chlorine in PotomacWater. *Proceedings of the 13<sup>th</sup> Water Quality Conference* (V. Snoeyink and V. Griffin: eds), University of Illinois. USA, 171-195 (107).
14. SOBSEY, M.D., FUJI, T. and SHIELDS, P.A. Inactivation of Hepatitis A. Virus and Model Viruses in Water by Free Chlorine and Monochloramine. *Water Sci. Tech.*, (1988) 20, 385-391 (236).
15. BERMAN, D. and HOFF, J.C. Inactivation of Simian Rotavirus SA11 by Chlorine, Chlorine Dioxide and Monochloramine. *Appl. And Environ. Microbiol.* (1984) 48, 317-323 (97).
16. WATSON, D.C., Abbot Analytical Certificate No. 00J. 200. HYD & 00J. 201. HYD
17. COATES, D., Public Health Laboratory Service, Bactericidal Studies on Oasis Water Purification Tablets (Hydrachem Ltd), (1992).
18. ROSENZWEIG, W.D., Minnigh, H.A and PIPES, W.O., Chlorine Demand and Inactivation of Fungal Propagules. *Appl. And Environ. Microbiol.* (1983), 45, 182-186.
19. COATES, D., Public Health Laboratory Service, An Evaluation of the Bacterial Activity of HydraChem Effervescent Chlorine Tablets against 3 strains of Methicillin Resistant *Staphylococcus Aureus*.
20. STRINGOR, R. and KRUSE, C.W., Amoebic Cysticidal Properties of Halogens in Water. *J. Sanit, Eng. Div.* (1971), Dec., 801-811 (128).
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  38. RICHARD, J., *Sax's Dangerous Properties of Industrial Materials*. Eighth Edition.
  39. SALDICK, J. Biodegradation of Cyanuric Acid *Applied Microbiology*. (Dec 1974) 1004-1008.
  40. MYSKOW, W., LASOTA, T., STACHYRKO, A. Cyanuric Acid-a s-triazine Derivate as a Nitrogen Source for some soil Micro-organisms. *Acta Microbiologica Palonica*, (1983) Jul 32 No2, 177-183.
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## Directions for Use

### Make-up:

Drop the required number of tablets, appropriate to application, into cold or warm water. Tablets will effervesce and dissolve taking between 1 and 4 minutes depending on degree of agitation and temperature of water.

### Application:

Sanitab tablets are used by dissolving the tablet(s) in water to yield the required strength of available chlorine, see below.

| Application  | Required Concentration Available Chlorine | Dilution Rates (tablets in clean potable tap water) |                                 |                                | Use Instructions   |
|--|---|---|---------------------------------|--------------------------------|--|
|  |   | Sanitab 2.5g (1.7g NaDCC)                           | Sanitab 4.72g (2.5g NaDCC)      | Sanitab Plus (1.7g NaDCC)      |  |
| Treatment of spillages of body fluids, excreta and HIV positive material.  | 10,000 ppm                                | 10 tablets in 1 litre                               | 7 tablets in 1 litre            | 10 tablets in 1 litre          | Allow 2 minutes contact time                                     |
| Laboratory discarded containers  | 2,500 ppm                                 | 5 tablets in 2 litres                               | 7 tablets in 4 litres           | 5 tablets in 2 litres          | Soak overnight   |
| General disinfection   | 1,000 ppm                                 | 1 tablet in 1 litre                                 | 2 tablets in 3 litres           | 1 tablet in 1 litre            | Allow 15 minutes contact time                                    |
| Cleaning stainless steel instruments   | 600 ppm                                   | 3 tablets in 5 litres                               | 2 tablets in 5 litres           | 3 tablets in 5 litres          | Allow 1 hour contact time  |
| Drains, sinks, W.C. pans, etc  | 400 ppm                                   | 1 tablet in 2.5 litres                              | 1 tablet in 3.5 litres          | 1 tablet in 2.5 litres         | Allow prolonged soak during quiet periods                        |
| Food preparation equipment, preparation areas, utensils, surfaces and for removal of stains on glass and crockery. | 200 ppm                                   | 1 tablet in 5 litres (Note 1)                       | 1 tablet in 7.5 litres (Note 1) | 1 tablet in 5 litres (Note 2)  | Soak for 3 minutes then air dry or use dry clean paper towels    |
| Cloths, mops general glassware cleaning.   | 60 ppm                                    | 1 tablet in 16 litres of water                      | 1 tablet in 25 litres           | 1 tablet in 16 litres of water | Soak to bleach clean & deoderise<br><u>Do not</u> soak overnight |

Note 1 – A neutral anionic, amphoteric or non-ionic surfactant may be added at about 0.5% concentration (e.g. alcohol ethoxylate) to aid cleaning efficiency (do not use cationic surfactants).

Note 2 – already contains a surfactant component, Do not add additional detergent.

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## **Packaging Details:**

Sanitab tablets are available as follows:

Sanitab 2.5g

- Tubs of 100 tablets (Minimum order quantity is 1 case of 6 tubs)

Sanitab 4.72g

- Tubs of 100 tablets (Minimum order quantity is 1 case of 6 tubs)

Sanitab Plus (3.25g)

- Tubs of 200 tablets (Minimum order quantity is 1 case of 6 tubs)