

## DESCRIPTION

Chlorsan contains Caustic Soda (NaOH), Sodium Hypochlorite and a blend of sequestering agents to inhibit scale formation and improve detergency. Chlorsan is formulated to be low foaming, enabling it to be used in recirculation applications. It is designed primarily for applications in Breweries, Beverage, Dairies and Food Processing plants. Chlorsan is also suitable for use in other high care industries. The combination of high alkalinity and chlorination gives excellent removal and suspension of fats, oils, protein, flavouring, vegetable and fruit staining; it is also very useful in brightening Stainless Steel.

## USE INSTRUCTIONS

In use concentrations of Chlorsan are application dependent and should be established during trials.

A 1% v/v solution of Chlorsan delivers approximately 0.15% w/v causticity (0.15% w/v NaOH) and circa 350 ppm available Chlorine.

Cleaning temperatures should be optimised during trials. However, it is not advisable to use chlorinated products above 50°C.

Chlorsan is not suitable for direct food contact.

The following are typical example applications, users should refer to Cleaning Instruction Cards for specific guidance. Other applications should be discussed with your Holchem Consultant.

**CIP.** For Clean in Place applications, Chlorsan is typically circulated for 20 – 30 minutes at 0.25% to 5% v/v. The exact concentration is dependent on water hardness and soil type/level. Before circulating the detergent, pre-rinsing with water is advisable. After cleaning, the circulation loop should be flushed with clean water until pH or conductivity of the rinsings is approximately equal to that of the water. To reduce the opportunity for corrosion the temperature should be restricted to 50°C maximum.

**Tray and Rack Washing.** Chlorsan should be dosed at between 0.25% and 2% v/v. Actual concentration values are dependent on the nature and level of the soiling. Dosing should be controlled by a timed dosing regime established during trials. Chlorsan has excellent soil handling properties, however it is recommended that gross soiling should be removed from items before they are passed through the washer. Ventilation around the traywasher may be required. To reduce the opportunity for corrosion the temperature should be restricted to 50°C maximum.

**Cooking Vessel Boil-out.** Chlorsan is suitable for cooking vessel boil-out to remove protein stains or carbonised and burnt on product residues. To reduce the opportunity for corrosion the temperature should be restricted to 50°C maximum. Chlorsan should be dosed at 0.5% to 5% v/v. Typical contact time (boil-out time) should be approximately 20 – 30 minutes. Where soil has become heavily mineralised (typically after repeated cooking of high dairy content products) it may be necessary to occasionally follow a Chlorsan clean with an acid clean. Nipac, Holphos or Scalit are convenient products, but they should not be mixed with Chlorsan and precautions should be taken to prevent these chemicals mixing in the drains.


**Soak Applications.** Chlorsan is suitable for soak baths used for Stainless Steel items at strengths between 0.5% to 1% v/v (175 – 350 ppm available Chlorine). Contact time should be 30 minutes, followed by rinsing with fresh water. To reduce the opportunity for corrosion the temperature should be restricted to 50°C maximum.

**Floor Cleaning.** Chlorsan can be used as a detergent in floor scrubbing machines at 0.25% to 2% v/v solution. However, it is essential to check that the machine is not constructed from soft metals.

### BENEFITS

- Excellent removal of protein, flavouring, tannin and vegetable deposits.
- Good soil removal and suspension.
- Suitable for use in hard water areas.
- Source of available Chlorine.

### TECHNICAL DATA

Appearance	Pale yellow non-viscous liquid
Odour	Bleach
Foam	No foam
Specific Gravity at 20°C	1.2
pH (1% solution at 20°C)	12 – 13
Active Alkalinity	13% w/w as NaOH
Chemical Oxygen Demand (COD)	24.2 g/L (As supplied)
Phosphorous Content (P)	0.52g/L (As supplied)
Mercury <sup>1</sup>	0.038 mg/L (max)
Cadmium	0.0048 mg/L (max)
Storage Temperature Range	- 10°C to + 30°C
Shelf Life	Maximum of 4 months under normal conditions
Holchem Classification	

<sup>1</sup> Note: Holchem's policy is to use Mercury free caustic.

### PRODUCT COMPATIBILITY

**CAUTION:** Contact with acid liberates Toxic Chlorine Gas. However, in normal use it is acceptable to follow this product with a disinfection stage using Peracetic Acid, provided all chlorinated detergent has been rinsed to drain. Also ensure that Peracetic Acid **is not being used** in another area that uses a common drain run. It is advisable **to not allow** kegs of Chlorsan and Peracetic Acid to be present at the same time during cleaning.

Chlorsan is effective on a wide range of soil types and is safe for use on most materials of construction. For soak applications care should be taken on Aluminium, Copper, Zinc, Tin or their alloys. It is always advisable to evaluate individual materials before prolonged use provided it is well rinsed after the cleaning stage. On Stainless Steel, pitting corrosion may occur if the product is used regularly at high concentrations.

### BIODEGRADABILITY

This product consists mainly of inorganic components for which biodegradation assessment is not applicable. The product meets the criteria as laid down in the European Detergents Regulation No 648/2004. Not expected to Bioaccumulate.

## TEST METHODS

### DROPPER TEST (ALKALINE TEST KIT)

Reagent	Ref.	Equipment	Ref.
PA1 Indicator	SKS00800-01	5 ml Syringe	SKS00820
PA2 Acid Solution	SKS00800-02	20 ml Syringe	SKS00822
Sodium Thiosulphate Crystals	SKS00800-03	Polycarbonate Test Jar	SKS00823

Step	Method
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| 1 | Using an appropriate syringe transfer 10 ml of the test solution into the test jar.  |
| 2 | Dilute with water to about 20 ml, then add a few Sodium Thiosulphate Crystals and 2 to 3 drops of PA1. The test solution should turn red.            |
| 3 | Hold PA2 vertically and add dropwise to the test jar, swirl the jar after each addition. Count drops required for the solution to become colourless. |
| 4 | <b>% v/v Product = ( No. of drops of PA2 ) x 0.040</b>   |
| 5 | Using a 2 ml sample of the test solution, follow steps 2 and 3.<br><b>% w/v NaOH = ( No. of drops of PA2 ) x 0.032</b>                               |

A TEST KIT IS AVAILABLE TO MEASURE LEVELS OF AVAILABLE CHLORINE.

## SAFE HANDLING & STORAGE

Store away from acids and other oxidising or reducing agents (e.g. Metabisulphite). Keep containers tightly closed.

COSHH places a duty on employers to assess and control the risks of using hazardous substances. The Safety Data Sheet provides the relevant information about the product to assist with this assessment.

## PACKS

Chlorsan is available in the following pack sizes:

- 4 x 5 Kg
- 30 Kg
- 240 Kg
- 1000 Kg

## GENERAL

For accident, emergency and health & safety information refer to the Safety Data Sheet for this product.

This product is registered with the National Poisons Information Service.

Whilst every effort is made to ensure that the information given in this product information sheet is accurate it is given without guarantee, since the conditions of use are beyond our control.