



Reliant Tabs

Broad Spectrum Disinfectant
Non-Food Contact Sanitizer



Nutritionally Smart Fundamentally Sound Scientifically Proven

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How NaDCC Works

How it differs from traditional Hypochlorite Bleach

The active ingredient in **Reliant Tabs** is Sodium dichloro-s-triazinetriene (NaDCC), which produces an Available Chlorine solution very effective as a disinfecting and sanitizing agent against a broad spectrum of micro-organisms.

While **Reliant Tabs** does provide chlorine, it is not a hypochlorite as is traditional bleach. There are significant differences that need to be understood to differentiate the two product types.

Sodium hypochlorite in bleach is stabilized with caustics and as a result, it has a pH of 11 or higher. NaDCC on the other hand has a neutral pH of ~6.5 when dissolved in water making NaDCC less harmful to **surfaces** and skin.

Once in solution, NaDCC releases approximately 50% of its total chlorine content as Free Available Chlorine (FAC) which is the active disinfection agent. As the FAC is consumed during the disinfection process, the NaDCC continues to release chlorine maintaining the 50/50 equilibrium in solution for longer lasting disinfection power than bleach. Sodium hypochlorite releases all its chlorine content immediately and once consumed there is no replenishment making it less effective. This means that **Reliant Tabs** is not inactivated by dirt/cloths/organic matter as easily as bleach.

FAC exists in two forms, Hypochlorous acid (HOCl) found in **Reliant Tabs** solutions and Hypochlorite ion (OCI-) found in a bleach solution. Studies have shown that Hypochlorous acid has **4X** (four times) more disinfection power than the hypochlorite ion. HOCl is very similar to the water molecule allowing it to easily penetrate through the negatively charged cell wall. Once the HOCl enters the micro-organism, it destroys the nucleus of the cell completing the disinfection process. The Hypochlorous acid found in bleach is used up very quickly, it doesn't penetrate the cell as easily and solutions must be replaced more often, especially in the presence of organic loads.

These differences lead to the unique advantages of **Reliant Tabs**:

- Hypochlorous acid contributes to stronger disinfecting power and enhanced longevity.
- Reliant Tabs have a shelf life 6x longer than bleach concentrate.
- Simple to use – accurate measurement in a convenient tablet.
- Surface friendly – less corrosive than bleach.



One product for use throughout an entire livestock facility

Assist offers an easy to use EPA registered effervescent tablet to disinfectant hard non-porous surfaces and drinking water. Effective against human and animal pathogens such as Clostridium perfringens. **Reliant Tabs are approved by NSF for drinking water.**



Neutral pH is less damaging to surfaces and equipment than acidic and alkaline disinfectants. Use Dilution is OSHA GHS Non-Hazardous for Health, Physical or Environmental Classifications reducing risk/facilitating worker safety

Compared to bleach which is corrosive to eyes and skin even at the use dilution; Similar pH to skin



Economical — lasts longer resulting in less waste

Longer shelf life in solution than bleach – 3 days compared to 1 day for bleach. Longer shelf life in tablet form than bleach – years compared to months for bleach. Continues working in the presence of organic load (i.e. blood and dirt). Sodium dichloro-s-triazinetriene retains killing power due to a 50 / 50 chemical equilibrium that continues to generate hypochlorous acid to replace that which is being used up in the process of destroying micro-organisms or contact with organic loads. This means that it is not inactivated by dirt/ cloths/organic matter as easily as chlorine is depleted from bleach.



Cost-savings in multiple ways: Storage, Shipping, Handling, Waste Minimization

Small tablet size: Reliant Tabs require less storage space than liquid bleach. Reduces shipping costs. Non-hazardous shipping. Reduces packaging waste.



Ease of training and usage

Exact dosage every time delivers accurate strength solution. Eliminates “measure and pour” guesswork.



Less odor

Mild chlorine odor
Less irritating to staff



ANIMAL PATHOGENS

When used at 1076 ppm solution, applied as outlined under Disinfection/Virucidal Directions, Reliant Tabs is effective against the following animal pathogens with a 10 minute contact time:

Canine Parvovirus
Newcastle Disease Virus
Pseudorabies
Canine Distemper Virus
Feline Calicivirus
Actinobacillus pleuropneumoniae
Avian influenza virus
Bordetella bronchiseptica (Rhinitis)
Brachyspira hyodysenteriae (Swine Dysentery)
 Infectious canine hepatitis
Clostridium perfringens
Gumboro disease virus
Porcine parvovirus
 Runting and stunting syndrome virus (tenosynovitis)
Streptococcus dysgalactiae
Streptococcus uberis
 Teschen/Talfan disease

STABILITY DATA

A stability study was conducted and found that solutions made up of strengths from 100 - 4306 ppm active chlorine, retained the required chlorine activity after storage for 3 days in a closed container at room temperature out of direct sunlight.

Based on this, Reliant Tabs solutions can be used for up to 3 days if stored in a closed container such as a spray bottle or buddy jug at room temperature out of direct sunlight. The solution should be replaced each week with freshly made solution.

PHYSICAL & CHEMICAL SPECIFICATIONS

Active Ingredient: Sodium dichloro-s-triazinetrione	48.21%
Working pH	6.5 +/- 0.5
Color	Clear
Odor	Slight Chlorine
OSHA GHS Rating In-Use	Non-Hazardous

MATERIAL SUBSTRATE COMPATIBILITY

Sodium dichloro-s-triazinetrione tablets dissolved in water produce a solution of hypochlorous acid.

The following chart shows the compatibility of a variety of materials with solutions up to 5,000 mg/L of available chlorine.

Metals	Compatibility
SS 304	A
SS 316	A
Aluminum	B
Brass	B
Bronze	B
Carbon Steel	C
Cast iron	C
Hasteloy C®	A
Titanium	A

The following chart shows the compatibility of a variety of materials with solutions up to 2,000 mg/L of available chlorine.

Plastics	Compatibility	Elastomers	Compatibility
ABS	A	Nitrile (Buna N)	A
CPVC	A	EPDM	A
Hytrel®	A	Hypalon®	A
HDPE	A	Kel-F®	A
LDPE	A	Santoprene®	A
Noryl®	A	Silicone	B
Polycarbonate	A	Tygon®	A
Polypropylene	A	Viton®	A
PPS	A	Nonmetals	Compatibility
PTFE	A	Carbon graphite	A
PVC	A	Ceramic A1203	A
PVDF	A	Ceramic magnet	A

Explanation of Ratings — Chemical Effect

A = Excellent.

B = Good – Minor Effect, slight corrosion or discoloration.

C = Fair – Moderate Effect, OK for short term use. Not recommended for continuous use. Some pitting may occur.

D = Severe Effect, not recommended for any use.

TESTING RESULTS

Human Microorganisms for Disinfection, Germicidal, Virucidal, and Fungicidal Claims	ATCC and/or Strain Number	Disease/Effect	1 minute contact time with organic soil load # tablets (ppm Solution)	4 minute contact time with organic soil load # tablets (ppm Solution)	10 minute contact time # tablets (ppm Solution)
<i>Clostridium difficile</i> spores	Spores	ATCC 43598	Colitis	4 per gal. (4306 ppm)	
<i>Salmonella enterica</i>	Bacteria	ATCC 10708	Food poisoning	4 per gal. (4306 ppm)	
<i>Staphylococcus aureus</i>	Bacteria	ATCC 6538	Wound infections etc.	4 per gal. (4306 ppm)	
Norovirus	Virus (Non-Enveloped)	ATCC VR-782, Strain F-9	Gastroenteritis	4 per gal. (4306 ppm)	
Vancomycin Resistant <i>Enterococcus faecalis</i> (VRE)	Bacteria	ATCC 51299	Enteritis etc.		1 per gal. (1076 ppm)
<i>Escherichia coli</i> 0157:H7	Bacteria	ATCC 35150	Food poisoning		1 per gal. (1076 ppm)
Canine Parvovirus	Virus (Non-Enveloped)	ATCC VR-2017, Strain Cornell	Parvovirus disease		1 per gal. (1076 ppm)
Feline Calicivirus	Virus (Non-Enveloped)	ATCC VR-782, STRAIN F-9	Gastroenteritis		1 per gal. (1076 ppm)
Canine Distemper Virus	Virus (Enveloped)	ATCC VR-128, Strain Lederle	Canine distemper		1 per gal. (1076 ppm)
Newcastle disease Virus	Virus (Enveloped)	ATCC VR-108, Strain B1 Hitchner or Blacksburg	Newcastle disease		1 per gal. (1076 ppm)
Influenza Virus (H1N1)	Virus (Enveloped)	ATCC VR-99	Swine flu		1 per 2 gal. (538 ppm)

Surrogate organism

Food Contact Surface Sanitizer When used at 100 ppm solution, applied as outlined under Sanitizer Directions, Reliant Tabs is an effective food contact surface sanitizer.	ATCC and/or Strain Number	Disease/Effect	1 minute contact time # tablets (ppm Solution)
<i>Salmonella enterica</i>	Bacteria	ATCC 10708	Food poisoning
<i>Staphylococcus aureus</i>	Bacteria	ATCC 6538	Wound infections etc.



13.1g Tablets

Reliant Tabs is a US EPA registered broad spectrum disinfectant, virucide and sanitizer as has been demonstrated by its performance in tests that are prescribed and regulated by the federal government under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

DILUTION CHART		
Tablet Size	13.1g	
Solution ppm (mg/L) Available Chlorine	Tablets	Gallons of Water
0.5	1	2153
1	1	1076
4	1	269
5	1	215
10	1	100
100	1	10
538	1	2
1076	1	1
2153	2	1
4306	4	1
5382	5	1

PACKAGING INFORMATION

Availability

Reliant Tabs 13.1g Tablet
256 tablets per tub (2 tubs per case)



EPA Reg. No. 71847-6-91852
EPA Est. No. 91852-IL-1 ESL 102721

Refer to label for directions for use, claims and other organisms.