



# quat disinfectant, no-rinse sanitizer

# DESCRIPTION

Savall is a clear, colourless, and odourless liquid germicide designed for use in hospitals, food processing plants, dairies, restaurants, bars, animal quarters, kennels and institutions. When used as directed, Savall disinfects and sanitizes pre-cleaned hard, non-porous surfaces such as floors, sink tops, tables, chairs and bed frames. Savall deodorizes those areas which generally are hard to keep fresh smelling, such as garbage storage areas, empty garbage bins and cans, pet areas and any other areas which are prone to odours caused by microorganisms.

# **FEATURES & BENEFITS**

Canadian Food Inspection Agency (CFIA) approved • mildewstat • not a cleaner, pure kill • sanitizer at 1:500 dilution • neutral pH, no rinse at 200ppm • no dye or fragrance

# SPECIAL INFORMATION

Canadian Drug Identification Number (DIN) #: 02240870

### **Active Ingredients:**

Alkyl (60% C<sub>14</sub>, 30% C<sub>16</sub>, 5% C<sub>12</sub>, 5% C<sub>18</sub>) dimethyl benzyl ammonium chlorides 5.0%

Alkyl (68% C<sub>12</sub>, 32% C<sub>14</sub>) dimethyl ethylbenzyl ammonium chlorides 5.0%

**Savall** is a Canadian Food Inspection Agency (CFIA) approved product for use in registered food processing plants. Surfaces in direct food contact must be rinsed with potable water. When used as directed (200ppm), **Savall** is a no-rinse sanitizer.

Savall is also Kosher approved.

## PHYSICAL DATA

Package: 4 x 3.78L cases, 18.9L pails & 208L drums Appearance: clear liquid Colour: colourless Foam: low Odour: mild - no added fragrance pH: 7.0-8.0

### **ProjectClean.com**

1607 Derwent Way, Delta, BC, Canada V3M 6K8 1-800-663-9925

# **Product codes:**





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# DIRECTIONS

### Disinfection of hospitals, food processing establishment, dairies, restaurants & bars:

Thoroughly pre-clean all surfaces with a Maxim cleaning product and rinse with water. Dilute 5.5 mL of Savall per litre (1:180) of water. Apply this 550 ppm solution with a mop, cloth, sponge or trigger sprayer so as to wet all surfaces thoroughly. Allow to remain wet for a period of 10 minutes, then remove all excess liquid. Prepare a fresh solution for each use.

**Savall** is not to be used as a sterilant/high-level disinfectant on any surface or instrument that: (1) is introduced directly into the human body, either into or in contact with the bloodstream or normally sterile areas of the body, or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to pre-clean or decontaminate critical or semi-critical medical devices prior to sterilization or high-level disinfection.

### Sanitization of previously cleaned, non-porous food contact surfaces:

Remove all gross food particles and soil from areas which are to be sanitized, pre-flush, pre-soak or prescrape. Rinse with a potable water rinse then sanitize using a 200 ppm active quaternary solution by adding 2 mL of **Savall** to 1 litre (1:500) of water.

### To sanitize immobile items such as tanks, chopping blocks and countertop:

Flood the area with 200 ppm active quaternary solution for at least 60 seconds making sure to wet all surfaces completely. Remove, drain the use solution from the surface and air dry. Prepare a fresh solution daily or more frequently as soil is apparent.

### To sanitize mobile items such as drinking glasses and eating utensils:

Immerse in a 200 ppm active quaternary solution for at least 60 seconds making sure to immerse completely. Remove, drain the used solution from the surface and air dry. Prepare a fresh solution daily or more frequently as soil is apparent. When used for sanitization of previously cleaned food equipment or food contact items, limit the active quaternary to 200 ppm. NO POTABLE WATER RINSE IS REQUIRED. **Savall** is an effective sanitizer when diluted in water up to 750 ppm hardness (CaCO<sub>3</sub>).

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### Deodorization of garbage storage areas, empty garbage bins and cans and pet areas:

Thoroughly pre-clean all surfaces and rinse with water. Dilute 5.5 ml of **Savall** per litre (1:180) of water. Apply this 550 ppm solution with a mop, cloth, sponge or trigger sprayer so as to wet all surfaces thoroughly. Allow to remain wet for a period of 10 minutes, then remove all excess liquid. Prepare a fresh solution for each use.

### Savall KILLS HIV-1 ON PRE-CLEANED ENVIRONMENTAL SURFACES/OBJECTS PREVIOUSLY SOILED WITH

**BLOOD/BODY FLUIDS** in health care settings (hospitals, long-term care homes) or other settings in which there is an expected likelihood of soiling of inanimate surfaces/objects with blood or body fluids, and in which the surfaces/objects likely to be soiled with blood or body fluids can be associated with the potential transmission of Human Immunodeficiency Virus Type 1 (HIV-1).

Special Instructions for cleaning and decontamination against HIV-1 on surfaces/objects soiled with blood or body fluids:

- **Personal protection:** when handling items soiled with blood or body fluids, use disposable latex gloves, gowns, masks, or eye coverings.
- **Cleaning procedures:** blood or body fluids must be thoroughly cleaned from surfaces and objects before application of this product.
- **Contact time/dilution:** at a use dilution of 32 mL per 4 L water (800 ppm), Savall is effective against HIV-1 in the presence of 5% blood serum with a 10 minute contact time.
- **Disposal of infectious materials:** Blood or other body fluids should be autoclaved and disposed of according to local regulations for infectious waste disposal.

Efficacy tests have demonstrated that Savall is an effective Bactericide and Virucide in the presence of organic soil (5% blood serum).

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# **EFFICACY DATA**

**Disinfection Data:** 

#### Test method:

AOAC Use Dilution

Test conditions:

• 5% serum, 10-minute contact time, stainless steel carrier substrates, 20°C exposure temperature.

Results Test Organism	Number of Carriers					
	Dilution	Sample	Exposed	Positive		
Staphylococcus aureus	3 ounces/	А	60	0		
(ATCC 6538)	5 gallons	В	60	0		
Salmonella enterica	3 ounces/	Α	60	0		
(ATCC 10708)	5 gallons	В	60	0		
Pseudomonas aeruginosa (ATCC 15442)	3.5 ounces/	А	60	0		
	5 gallons	В	60	0		
Listeria monocytogenes (ATCC 35152)	3 ounces/	Α	10	0		
	5 gallons	В	10	0		
Yersinia enterocolitica (ATCC 23715)	3 ounces/	А	10	0		
	5 gallons	В	10	0		
Staphylococcus aureus (Vancomycin	3.5 ounces/	А	10	0		
Intermediate Resistant (VISA) (HIP 5863)	5 gallons	В	10	0		
Escherichia coli (ATCC 11229)	*See Sanitization Data Section for information					
Escherichia coli 0157:H7 (ATCC 43895)	*See Sanitization Data Section for information					

#### **Conclusion:**

Under the conditions of these investigations, **Savall** demonstrated disinfectant activity against Staphylococcus aureus, Salmonella enterica, Listeria monocytogenes, Yersinia enterocolitica, Pseudomonas aeruginosa and Staphylococcus aureus (Vancomycin intermediate resistant)(VISA) according to the criteria established by the US Environmental Protection Agency for registration and labeling of a disinfectant product as a bactericide. The AOAC Use Dilution test method is accepted in Canada.

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#### Sanitization Data:

#### Test method:

• AOAC Germicidal and Detergent Sanitizing Action of Disinfectants

#### Test conditions:

Synthetic hard water as 650 ppm hardness (as CaCO<sub>3</sub>) 200 ppm active quaternary (public eating establishments and dairies) 200-400 ppm active quaternary (food processing equipment/utensils) 1-2 ounces/4 gallon dilution.

	Total Bacterial Counts/% Kill vs. Exposure Time					
Results:	30 SECONDS			60 SECONDS		
Test Organism	Sample	твс*	% Kill**	TBC*	% Kill**	Inoculum Kill Control Count
Staphylococcus aureus (ATCC 6538)	A B C	970 1285 1145	99.999 99.999 99.999	105 205 130	99.999 99.999 99.999	7.8 x 10 <sup>7</sup> 9.2 x 10 <sup>7</sup> 9.3 x 10 <sup>7</sup>
Escherichia coli (ATCC 11229)	A B C	1125 1075 835	99.999 99.999 99.999	50 95 75	99.999 99.999 99.999	1.0 x 10 <sup>8</sup> 9.3 x 10 <sup>7</sup> 8.1 x 10 <sup>7</sup>
Escherichia coli 0157:H7 (ATCC 43895)	A B	1220 1000	99.999 99.999	110 125	99.999 99.999 99.999	9.2 x 10 <sup>7</sup> 9.2 x 10 <sup>7</sup>
Listeria monocytogenes (ATCC 35152)	A B	< 10 < 10	> 99.999 > 99.999	< 10 < 10	> 99.999 > 99.999	7.8 x 10 <sup>8</sup> 7.8 x 10 <sup>8</sup>
Yersinia enterocolitica (ATCC 23715)	A B	108 1300	99.999 99.999	< 10 263	> 99.999 99.999	1.7 x 10 <sup>8</sup> 5.9 x 10 <sup>8</sup>
Campylobacter jejuni (ATCC 29428)	A B	790 780	99.999 99.999	410 470	99.999 99.999	8.6 x 10 <sup>7</sup> 8.6 x 10 <sup>7</sup>
Methicillin resistant Staphylococcus aureus (ATCC 33592, MRSA)	A B	950 970	99.999 99.999	< 10 < 10	> 99.999 > 99.999	1.0 x 10 <sup>8</sup> 1.0 x 10 <sup>8</sup>
Salmonella typhi (ATCC 6539)	A B	< 10 < 10	> 99.999 > 99.999	< 10 < 10	> 99.999 > 99.999	1.4 x 10 <sup>8</sup> 1.4 x 10 <sup>8</sup>
Shigella sonnei (ATCC 11060)	A B	680 4500	99.999 99.999	< 10 < 10	> 99.999 > 99.999	9.3 x 10 <sup>7</sup> 9.3 x 10 <sup>7</sup>
Vancomycin resistant Enterococcus faecalis (ATCC 51299, VRE)	A B	< 10 < 10	> 99.999 > 99.999	< 10 < 10	> 99.999 > 99.999	1.2 x 10 <sup>8</sup> 1.2 x 10 <sup>8</sup>
Vibrio cholera (ATCC 14035)	A B	< 10 < 10	> 99.999 > 99.999	< 10 < 10	> 99.999 > 99.999	8.3 x 10 <sup>7</sup> 8.3 x 10 <sup>7</sup>
Klebsiella pneumoniae¹ (ATCC 4352)	A B	340 190	> 99.999 > 99.999	< 10 < 10	> 99.999 > 99.999	1.1 x 10 <sup>8</sup> 1.1 x 10 <sup>8</sup>
*TBC = Total Bacterial Count ** = % Kill calculation based on Initial Inoculum control count						

#### Conclusion:

Under the conditions of these investigations, Savall demonstrated sanitizing activity against Staphylococcus aureus, Escherichia coli, Escherichia coli 0157:H7, Klebsiella pneumoniae1 Listeria monocytogenes, Campylobacter jejuni, Salmonella typhi, Shigella sonnei, Vibrio cholera, Methicillin resistant Staphylococcus aureus, Vancomycin resistant Enterococcus faecalis and Yersinia enterocolitica according to the criteria established by the US Environmental Protection Agency for registration and labeling of a disinfectant product as a sanitizer. The AOAC Germicidal and Detergent Sanitizing Action of Disinfectants test method is accepted in Canada.

 Synthetic hard water as 500 ppm hardness (as CaCO<sub>3</sub>).

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### Virucidal Data:

Test methods:

- \*U.S. E.P.A. Pesticide Assessment Guidelines, Subdivision G: Product Performance, Section 91-30, 1982, pp. 72-76.
- \*\*Protocols for Testing the Efficacy of Disinfectants against Hepatitis B Virus (HBV) (EPA), Federal Register, Vol.65, No. 166, 8/25/2000, p. 51828).
- \*\*\*Protocol for Testing Disinfectants against Hepatitis C virus using BovineViral Diarrhea Virus as approved by the U.S. EPA on August 15, 2002.
- ~Virucidal Assay (EPA, Federal Register 10, No.123, 6/25/75, p.26836).

### Test conditions:

• 10-minute contact time, 3.5 oz/5 US gallon dilution, glass petri dish substrates, 18.5-25°C exposure temperature, tested in the presence of serum.

Results Test Organism	Sample		Titer Reduction	
~Herpes Simplex type 1 (Sabin)	А	В	4.0 log	4.0 log
*Human Immunodeficiency Virus, HTLV-III <sub>RF</sub> , strain of HIV-1 (associated with AIDS)	А	В	>/= 3.5 log	>/= 3.5 log
~Influenza A₂, strain Japan (305/57)	А	В	7.5 log	7.5 log
~Adenovirus Type 5	А	В	>/= 3.0 log	>/= 3.3 log
*Vaccinia (Wyeth)	А	В	3.5 log	3.5 log
*Avian Influenza A/Turkey/Wisconsin (ATCC VR-798)	А	В	>/= 5.5 log	>/= 5.5 log
*Laryngotracheitis (LT-IVAX)	А	В	4.75 log	>/= 4.75 log
Porcine Respiratory & Reproductive Syndrome Virus (PRRSV)	А	В	>/= 5.75 log	>/= 5.75 log
*Newcastle Disease virus (strain H.J. Roakin, 1946)	А	В	>/= 5.5 log	>/= 5.5 log

#### Conclusion:

Under the conditions of this investigation, Maxim Savall, was virucidal for Porcine Respiratory & Reproductive Syndrome Virus (PRRSV), Herpes Simplex Type 1 (Sabin), Human Immunodeficiency Virus (HIV-1), Influenza A2 (Japan 305/57), Vaccinia (Wyeth), Adenovirus Type 5, Avian Influenza A/Turkey/ Wisconsin, Laryngotracheitis Virus and Newcastle Disease virus according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a virucide.

Maxim Savall has demonstrated effectiveness against Vaccinia and Influenza A virus and is expected to inactivate all Influenza A viruses including 2009 (H1N1) pandemic Influenza A virus.

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# DIRECTIONS

PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN. CAUTION - CORROSIVE.

Causes eye and skin damage. Do not get in eyes, on skin or on clothing. Wear goggles or face shield and rubber gloves when handling. Harmful or fatal if swallowed. Avoid contamination of food. Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water after handling.

### First Aid:

Take container, label or product name and Drug Identification Number (DIN) with you when you seek medical attention.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. Avoid alcohol. **IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Get medical help if person feel unwell.

NOTE TO PHYSICAN: Probable mucosal damage may contraindicate the use of gastric lavage.

**DISPOSAL:** Rinse the emptied container thoroughly. Make the empty container unsuitable for further use. Dispose of the container in accordance with provincial requirements. For information on the disposal of unused, unwanted product and the cleanup of spills, contact the Provincial Regulatory Agency or Project Clean at regulatory@projectclean.com.

### For further information, please review the Safety Data Sheet (SDS) and Product Label.

**STORAGE:** Store at room temperature. Store tightly closed in a cool, dry place in original container away from sunlight. Do not freeze.

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