

PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER**

**KEEP OUT OF REACH OF CHILDREN**

Corrosive. Causes irreversible eye damage. Causes skin irritation. Harmful if inhaled. May be fatal if swallowed. Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Causes asthmatic signs and symptoms in hyper-reactive individuals. Do not get in eyes, on skin, on clothing. Avoid breathing vapor. Do not swallow. Wear goggles, protective clothing, and butyl or nitrile gloves. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

**STORAGE AND HANDLING**

UCARSAN® 4256 Sanitizer is incompatible with many commonly used materials of construction such as steel, galvanized iron, aluminum, tin, and zinc. This product can be stored and handled in baked phenolic-lined steel, polyethylene, stainless steel, or reinforced epoxy-plastic equipment. This product freezes at about 21°F (-6°C). Therefore, unless the storage tank is inside or underground, heating and insulation may be required. If heating is needed, exposure to high temperatures should be avoided. For short storage times (up to about 1 month), temperatures of up to 100°F (37.8°C) can be tolerated but the preferred maximum storage temperature is about 80°F (26.7°C). A stainless steel centrifugal pump is suggested for transfer service. Spiral wound stainless steel with TEFLON® is suitable for gaskets and packing.

**LIMITED WARRANTY AND DISCLAIMER**

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use when it is used in accordance with such directions; and (c) that the directions, warnings and other statements on this label are based upon responsible experts' evaluation of reasonable tests of effectiveness and of toxicity to laboratory animals. Tests have not been made on all varieties or in all states or under all conditions. THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE, ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE. This warranty does not extend to, and the Buyer shall be solely responsible for, any and all loss or damage which results from the use of this product in any manner which is inconsistent with the label directions, warnings or cautions.

BUYER'S EXCLUSIVE REMEDY AND MANUFACTURER'S OR SELLER'S EXCLUSIVE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT SUCH LIABILITY IS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF, OR THE REPAYMENT OF THE PURCHASE PRICE FOR, THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

**BEFORE HANDLING OR USING, READ AND UNDERSTAND  
CURRENT UNION CARBIDE MATERIAL SAFETY DATA  
SHEET FOR THIS PRODUCT.**



Active Ingredient: Glutaraldehyde ..... 25.6%  
Inert Ingredients: ..... 74.4%  
100.0%

**KEEP OUT OF REACH OF CHILDREN  
DANGER**

**STATEMENT OF PRACTICAL TREATMENT**

**IF IN EYES:** Immediately flush with plenty of water for at least 15 minutes. Get immediate medical attention.  
**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention.  
**IF INHALED:** Remove to fresh air. If breathing is difficult, administer oxygen. If symptoms persist, call a physician.  
**IF SWALLOWED:** DO NOT INDUCE VOMITING. Do not give anything to drink. Seek medical advice with urgency.  
**NOTE TO PHYSICIAN:** Aspiration may cause lung damage. Probable mucosal damage may contraindicate the use of gastric lavage.

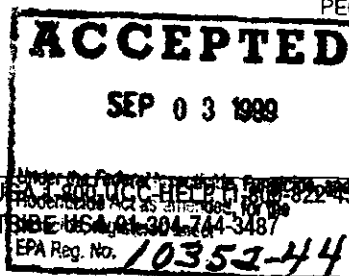
SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

**UNION CARBIDE CORPORATION**

39 Old Ridgebury Road • Danbury, CT 06817-0001  
EPA Reg. No. 10352-44  
UCARSAN® is a registered trademark  
of Union Carbide  
Net Contents 55 gallons

EPA Est. No. 10352-WV-2  
UCC-L90266 C( /98)  
Made In USA  
PE0998

90266 PRODUCT CODE	CONTAINER SIZE
	55 GALLONS
485 POUNDS	NET WEIGHT



EMERGENCY CONTACT (24 HOURS PER DAY): IN USA 1-800-UC-CHEM (1-800-822-4567)

OUTSIDE USA 01-304-744-3487  
EPA Reg. No. 10352-44

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**DO NOT USE THIS PRODUCT ON FOOD OR FEED**

This product is for use on cement, wood, metal and ceramic surfaces.

**SANITIZING FARM, ANIMAL, AND POULTRY HOUSING FACILITIES AND EQUIPMENT.**

Remove all poultry and other animals and feed from the premises. Remove all portable equipment. Remove all litter and manure from floors and other surfaces. Empty all water troughs and feed sacks. Do not repopulate with poultry or other animals, or use equipment until treatment has been absorbed or dried. All treated feeders and waterers must be thoroughly scrubbed with detergent and rinsed with potable water prior to re-use. Ventilate thoroughly before re-use.

To sanitize vegetative pathogens: *Clostridium perfringens*, *Enterobacter aerogenes*, *Escherichia coli*, *Haemophilus parasuis*, *Klebsiella pneumoniae*, *Mycoplasma gallisepticum*, *Mycoplasma synoviae*, *Pasteurella multocida*, *Salmonella enteritidis*, *Salmonella pullorum*, *Salmonella typhi*, *Staphylococcus aureus*, and *Streptococcus suis*, and viruses: *Avian infectious bronchitis virus*, *Avian influenza*, *Avian laryngotracheitis*, *Avian reovirus*, *Avian rotavirus*, *Canine parvovirus*, *Infectious bursal disease*, *Marek's disease virus*, *Pseudorabies virus*, *Transmissible gastroenteritis virus*, *Hog Cholera virus* and *Porcine Reproductive Respiratory Syndrome*.

1. Thoroughly saturate all surfaces using a mop or by spraying with a solution prepared by mixing one ounce of UCARSAN® 4256 Sanitizer with two gallons of water which produces a solution containing 0.1% active ingredient.
2. Allow to set for at least five minutes, or until thoroughly dried.
3. Ventilate thoroughly before re-use.
4. Fresh solution should be prepared daily or more often if the solution becomes diluted or soiled.

**STORAGE AND DISPOSAL**

**PESTICIDE DISPOSAL:** Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or your Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.  
**CONTAINER DISPOSAL:** Metal Containers or Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or other procedures approved by state and local authorities. Plastic Containers: May be incinerated, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Metal Containers: Must not be incinerated. Do not cut or weld on or near metal containers.

## UCARSAN® 4256 Sanitizer

UCARSAN® 4256 Sanitizer is specially formulated for farm animal and poultry housing facilities and equipment, as well as industrial equipment and buildings.

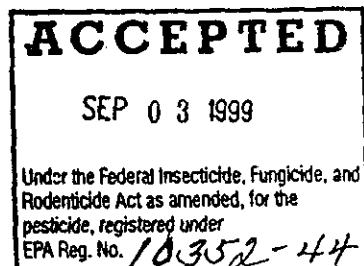
UCARSAN® 4256 Sanitizer combines the powerful antimicrobial action of glutaraldehyde with an effective synthetic detergent. When diluted according to label directions, the end-use solution contains 0.1% glutaraldehyde.

### Description and Special Features

At the recommended use-dilution of 0.1% (1000 ppm) glutaraldehyde, UCARSAN® 4256 Sanitizer has many important advantages including:

- Effective against a broad spectrum of microorganisms, including viruses\* pathogenic to animals.
- Fast acting.
- No tacky buildup on treated surfaces, eliminating the need for time-consuming and costly removal and cleanup.
- Does not contain or release formaldehyde.
- Effective performance on a wide variety of construction materials.
- Not affected by hard water.
- Noncorrosive to metals that can tolerate exposure to water, thus avoiding etching, pitting, or scale formation.
- Properly diluted solutions pose no detrimental effects to waste treatment systems.

\*Please refer to "EPA Virucidal Tests" table on page 3.



## Product Performance

UCARSAN® 4256 Sanitizer is suitable for use on a wide variety of surfaces. In actual field use, it reduces contamination on commonly used materials of construction, including stainless steel, aluminum, painted and unpainted concrete, plastic, and wood. Furthermore, it is no more damaging to these materials than is water. Even after repeated applications, there was no detectable buildup or tacky residue remaining after the treated surfaces had dried.

There have been no adverse effects reported in the hatch rate, growout rate, or general health appearance of fowl that were hatched and processed in UCARSAN 4256 Sanitizer-treated areas.

## Antimicrobial Activity

The effectiveness of UCARSAN® 4256 Sanitizer can be seen in the AOAC Germicidal and Detergent Sanitizer Test. At the recommended use dilution, UCARSAN® 4256 Sanitizer completely destroyed test microorganisms in less than one minute, even in the presence of extremely hard water.

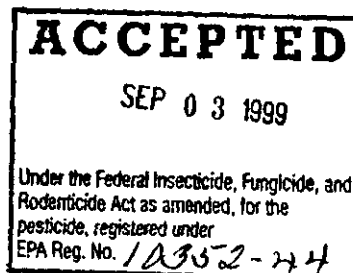
### AOAC Germicidal and Detergent Sanitizer Test

Contact Temperature = 25°C

Hardness as CaCO<sub>3</sub> = 1200 ppm

	Microorganism Level (cfu/mL)	
	Initial	Surviving After 1 min.
<i>Escherichia coli</i> ATCC 11229	4.6 x 10 <sup>8</sup>	0
<i>Salmonella typhi</i> ATCC 6539	2.0 x 10 <sup>8</sup>	0
<i>Staphylococcus aureus</i> ATCC 6538	3.8 x 10 <sup>8</sup>	0

UCARSAN® 4256 Sanitizer was also tested by a modified EPA Sanitizer Test for non-food-contact surfaces against microorganisms that are particularly troublesome in animal health. UCARSAN® 4256 Sanitizer completely destroyed the target organisms within 5 minutes.



### Modified EPA Sanitizer Test

Contact Temperature = 25°C

Hardness as CaCO<sub>3</sub> = 1200 ppm

Microorganism	Microorganism Level (cfu/mL)	
	Initial	Surviving After 5 min.
Escherichia coli ATCC 8739	$2.3 \times 10^5$	0
✓ Salmonella pullorum ATCC 10398	$4.7 \times 10^6$	0
✓ Salmonella typhi ATCC 6539	$3.0 \times 10^5$	0
Pseudomonas aeruginosa ATCC 15442	$3.5 \times 10^6$	0
Staphylococcus aureus ATCC 6538	$2.7 \times 10^6$	0
Klebsiella pneumoniae ATCC 4352	$3.2 \times 10^6$	0
✓ Clostridium perfringens ATCC 13124*	$5.3 \times 10^3$	0
Enterobacter aerogenes ATCC 13048*	$6.1 \times 10^4$	0
Haemophilus parasuis ATCC 19417*	$4.6 \times 10^4$	0
Mycoplasma gallisepticum ATCC 15302*	$5.1 \times 10^4$	0
Mycoplasma synoviae ATCC 25204*	$1.7 \times 10^5$	0
Pasturella multocida ATCC 8747*	$2.0 \times 10^5$	0
Salmonella enteritidis ATCC 13076*	$5.9 \times 10^5$	66
Streptococcus suis ATCC 43765*	$9.1 \times 10^4$	0

\* Wood surface, test solution contains 5% serum albumin

The efficacy of UCARSAN® 4256 Sanitizer against a number of important viruses was determined in hard water according to US EPA guidelines for disinfectants intended for use on dry inanimate surfaces. (US EPA Pesticide assessment guidelines, subdivision G: Product Performance, 1982, Section 91-30, pp. 72-76.) UCARSAN® 4256 Sanitizer significantly reduced the titer of each virus after 5 or 10 minutes of contact.

### EPA Virucidal Tests

Contact Temperature = 25°C

Hardness as CaCO<sub>3</sub> = 1200-1400 ppm

Virus	-log <sub>10</sub> TCID <sub>50</sub> /0.05 ml				GA, Conc. (ppm)
	Control Titer	Reduction in Titer*	Contact Time, min.		
New Castle Disease Virus	> 6.0 <sup>†</sup>	≥ 5.5	5		1000
Avian Reovirus	5.6	≥ 4.1	10		500
Avian Rotavirus	6.6	≥ 4.1	10		500
Canine Parvovirus	6.0	≥ 3.5	10		500
Infectious Bronchitis Virus	6.2	≥ 5.7	10		500
Pseudorabies Virus	5.2	≥ 4.7	10		500
Transmissible Gastroenteritis Virus	5.2	≥ 4.7	10		500
Infectious Bursal Disease Virus	> 6.0 <sup>†</sup>	≥ 3.5	5		1000
Avian Influenza Virus	> 6.0 <sup>†</sup>	≥ 5.5	5		1000
Avian Laryngotracheitis	5.5 <sup>‡</sup>	≥ 4.1	5		1000
Marek's Disease Virus	5.2 <sup>‡</sup>	≥ 4.5	5		1000
Porcine Reproductive & Respiratory Syndrome Virus (PRRS)	6.0**	≥ 6.0	5		1000
Hog Cholera Virus	6.5**	≥ 6.5	5		1000

**ACCEPTED**

SEP 03 1999

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 10352-44

• A >3-log reduction in titer in 10 min is required to pass the test.

† Titer is  $-\log_{10} \text{TCID}_{50}/0.2 \text{ mL}$ .

‡ Titer is  $-\log_{10} \text{TCID}_{50}/\text{mL}$ .

\*\* Titer is  $-\log_{10} \text{TCID}_{50}/0.1 \text{ mL}$ .

## Compatibility

UCARSAN® 4256 Sanitizer is suitable for use on many surfaces. At the recommended use-dilution, it is compatible with all common materials of construction that can tolerate exposure to water. The following materials were subjected to 25 spray/dry cycles at 25°C, without rinsing, with no detectable changes relative to duplicate materials sprayed with water.

- Aluminum
- Brass
- Chrome-Plated Steel
- Copper
- Stainless Steel
- Glass
- Glazed Ceramic Tile
- Unglazed Ceramic Tile
- Linoleum Floor Tile
- Latex Rubber
- Polyethylene
- Unpainted Wood

## Effectiveness on Materials of Construction

UCARSAN® 4256 Sanitizer is effective on most commonly used materials of construction. When tested according to the EPA Sanitizer Test for Inanimate, Non-Food-Contact Surfaces, UCARSAN® 4256 Sanitizer effectively destroys microorganisms on aluminum, stainless steel, polyethylene, galvanized steel, glazed ceramic tile, unglazed ceramic tile, unpainted wood, and cement at the recommended use-dilution.

### EPA Sanitizer Test for Inanimate, Non-Food-Contact Surfaces

Contact Temperature = 25°C

Hardness as  $\text{CaCO}_3$

Contains 5% serum albumin

**ACCEPTED**

SEP 03 1999

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 10352-44

Test Surface	<i>Staphylococcus aureus</i> ATCC 6358 Microorganism Level (cfu/mL)		<i>Klebsiella pneumoniae</i> ATCC 4352 Microorganism Level (cfu/mL)	
	Initial	Surviving After 5 min.	Initial	Surviving After 5 min.
Aluminum	$1.2 \times 10^6$	0	$1.8 \times 10^6$	0
Stainless Steel	$1.6 \times 10^6$	0	$2.1 \times 10^6$	0
Polyethylene	$2.1 \times 10^6$	0	$6.0 \times 10^5$	0
Galvanized Steel	$3.7 \times 10^4$	6	$5.4 \times 10^4$	0
Glazed Ceramic Tile	$1.3 \times 10^6$	0	$1.5 \times 10^6$	0
Unglazed Ceramic Tile	$3.4 \times 10^5$	5	$7.3 \times 10^4$	9
Unpainted Wood	$7.1 \times 10^4$	19	$6.9 \times 10^4$	10
Cement	$6.3 \times 10^4$	1	$5.4 \times 10^4$	10

## Applications

UCARSAN® 4256 Sanitizer effectively sanitizes over a broad range of use-conditions. They can be easily diluted with available water without concern for reducing performance because of interactions with water hardness. Fogging, atomizing, or spraying are all effective application techniques. UCARSAN® 4256 Sanitizer has demonstrated effectiveness in controlling microorganisms in the following critical areas:

### Farm Animal and Poultry Housing Facilities

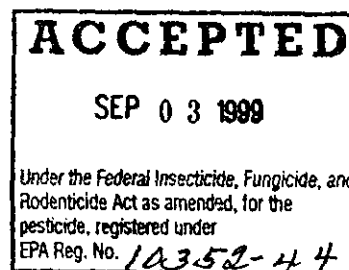
UCARSAN® 4256 Sanitizer is ideal for sanitizing hatchers and setters, as well as egg rooms, tray washers, animal processing areas, barns and farrowing areas, farm equipment, and general farm housing areas. UCARSAN® 4256 Sanitizer is a concentrated solution for use by large volume users. A convenient one ounce to two gallon dilution is all that is required to obtain the correct usage concentration.

### Industrial Equipment and Buildings

UCARSAN® 4256 Sanitizer is also available for sanitizing industrial equipment and buildings, including clean rooms, mixing and product packaging equipment, transfer lines, and storage tanks.

## Summary

At a use concentration of 0.1% glutaraldehyde, UCARSAN® 4256 Sanitizer can be used effectively to control many important pathogenic microorganisms, including viruses. For sanitizing farm animal and poultry housing facilities and equipment, as well as industrial equipment and buildings, UCARSAN® 4256 Sanitizer is effective on a variety of surfaces within 5 minutes of application. (Please refer to the product label for specific use directions.)



## Safe Handling, Storage, and Disposal

When applying UCARSAN® 4256 Sanitizer, it is important to wear the appropriate protective equipment. This equipment includes proper gloves, splash-proof monogoggles or both safety glasses with side shields and a wrap-around full-face shield, coveralls, and when necessary, respiratory equipment. When applying glutaraldehyde sanitizers by fogging, spraying, or atomizing, it is necessary to wear an organic vapor cartridge respirator. **Please refer to the product label for specific precautions and use directions.** Further information and precautions regarding the handling, storage, and disposal of UCARSAN 4256 Sanitizer can be obtained by consulting the latest Union Carbide Material Safety Data Sheet and the *Glutaraldehyde Safe Handling and Storage Guide*, publication number UC-1255, available from your Union Carbide representative. See the back page for addresses and phone numbers.

## Product Safety

When considering the use of any Union Carbide product in a particular application, you should review our latest Material Safety Data Sheets and ensure that the use you intend can be accomplished safely. For Material Safety Data Sheets and other product safety information, contact the Union Carbide Sales Office nearest you. Before handling any other products mentioned in the text, you should obtain available product safety information and take necessary steps to ensure safety of use.

No chemical should be used as or in a food, drug, medical device, or cosmetic, or in a product or process in which it may contact a food, drug, medical device, or cosmetic until the user has determined the suitability and legality of the use. Since government regulations and use conditions are subject to change, it is the user's responsibility to determine that this information is appropriate and suitable under current, applicable laws and regulations.

Union Carbide requests that the customer read, understand, and comply with the information contained in this publication and the current Material Safety Data Sheet(s). The customer should furnish the information in this publication to its employees, contractors, and customers, or any other users of the product(s), and request that they do the same.

