Wyandotte™

DIVIDEND®

Anionic Acid Sanitizer

ACTIVE INGREDIENTS:

Ortho Phosphoric Acid	30.0%
Dodecylbenzene Sulfonic Acid	5.0%
INERT INGREDIENTS	65.0%
	100.0%

Wyandotte Dividend fulfills the criteria of Appendix F of the Grade "A" Pasteurized Milk Ordinance, 1965 recommendations of the U. S. Public Health Service when tested by the method outlined by Chambers.

Use Concentrations in 2 Gallons of Water

USE	DILUTION STRENGTH	FOR
1 fluid ounce (2 level tablespoons)	**200 ppm* active agent**	**Sanitizing by immersion, brushing or circulation.**
2 fluid ounces (4 level tablespoons)	**400 ppm* active agent**	**Spray method.**

*Parts of Dividend per million parts of water.

DANGER: Keep out of reach of children—see danger text and first aid on right side panel.

FOR INDUSTRY USE ONLY

CONTENTS ONE GALLON

BASF

BASF Wyandotte Corporation
Chemical Specialties Division
Wyandotte, Michigan 48192

DANGER: KEEP OUT OF REACH OF CHILDREN. CORROSIVE. CAUSES EYE DAMAGE AND SKIN IRRITATION. 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. Rinse empty container thoroughly with water before discarding.

FIRST AID: In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. For eyes, call a physician. Remove and wash contaminated clothing before reuse.

If swallowed, drink *promptly* a large quantity of milk, egg whites, gelatin solution or if these are not available, drink large quantities of water. Avoid alcohol. Call a physician immediately.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsion may be needed.

MAIN PANEL

Contents: 55 gallons
30 gallons
12 gallons
5 gallons
1 gallon

Wyandotte

PREVIEW

GERMICIDAL LIQUID DETERGENT
DISINFECTANT . . . . DEODORANT

ACTIVE INGREDIENTS:

O-benzyl-p-chlorophenol.	4.0%
Potassium oleate	3.0%
O-phenyl-phenol	2.0%
INERT INGREDIENTS	90.1%
	100.0%

CAUTION: KEEP OUT OF REACH OF CHILDREN. Harmful if swallowed. Avoid prolonged skin contact, and avoid splashing in eyes. For eyes, wash immediately with large amounts of water and consult physician.

For hand washing of surfaces, use rubber gloves.

Lithographed on)
bo of all but)
1 gal. containers)

WYANDOTTE CHEMICALS CORPORATION
J. B. FORD DIVISION
Wyandotte, Michigan

Plant Locations: California . Georgia . Michigan

7/24/57
(August 17, 1)

SIDE PANEL LEFT

DIRECTIONS: For general cleaning and disinfecting, use 2 fl. oz. Preview per gallon of water (1.64 dilution).

For heavy duty cleaning or tuberculocidal activity, use 4 fl. oz. Preview per gallon of water (1.32 dilution).

Preview should not be applied with mops used for other purposes.

Recommended for conductive and resilient flooring, tile, linoleum, terrazzo, and painted surfaces, when used as directed.

SIDE PANEL RIGHT

MINIMUM PHENOL COEFFICIENT (AOAC 10th Edition):

Staphylococcus aureus 8.0
Salmonella typhosa 9.5
Escherichia coli 10.0

USE-DILUTION TEST (AOAC 10th Edition):

Staphylococcus aureus 1:64
Salmonella choleraesuis 1:64
Escherichia coli 1:64
Mycobacterium tuberculosis hominis var. H37Ra 1:32

USDA Reg. No. 652-32

(August 1[illegible] 1[illegible])

PREVIEW

BACTERICIDAL - FUNGICIDAL - TUBERCULOCIDAL - PSEUDOMONICIDAL

Hospitals
Institutions
Convalescent Homes
Clinics
Schools
Office Buildings
Transportation terminals
Industrial plants
Public Buildings

ACCEPTED

OCT 16 1967

UNDER THE FEDERAL INSECTICIDE FUNGICIDE AND RODENTICIDE ACT FOR THE PRODUCT(S) REGISTERED UNDER NO. 662-32 SUBJECT TO ATTACHED COMMENTS.

"Cultures from contaminated surfaces show the effective disinfecting power of Preview against both Gram positive and negative bacteria. The photograph of cultures on the left shows contaminating organisms isolated from a hard surface. The photograph on the right is of the same surface which has been freed of all bacteria after cleaning and disinfecting with Preview."

DETERGENCY A general-purpose liquid maintenance cleaner, Preview used at the recommended disinfecting concentration of 1 to 64 provides fast deep penetration of soil, grime, and films, is easy to handle and economical to use. Not only does Preview's deeper penetration result in more effective, more thorough cleaning, but also greater germicidal protection against hidden bacteria.

RESIDUAL ACTIVITY In the past, all residual claims have been based on the fact that phenolics are re-solubilized when wetted by a liquid containing bacteria.

Currently tests are being developed by recognized authorities which will reflect the effectiveness of residuals such as phenolics on bacteria which may fall on them in a dry condition, such as found in hospital rooms.

Using the older technique, residue of Preview has been shown to prevent multiplication of organisms contacting the surfaces. It is not expected to kill the organisms unless traces of moisture also happen to be present.

DEODORIZER The carefully balanced blend of phenolics in Preview gives effective disinfecting and deodorizing action with a faint phenolic odor. Preview not only destroys odors, but through its disinfecting action, removes the cause.

NOT HARMFUL TO SURFACES Preview is intended for use on floors of all kinds--hard, resilient and conductive and for walls, painted surfaces, furniture, fixtures, carts, examining tables, stretchers. Excellent for use in operating rooms, Preview also is recommended for disinfecting contaminated equipment by spraying with a Wyandotte DMA Spray Injector.

Preview may be used for cleaning and disinfecting patient-care rooms, and may be used safely in the floor-flooding method of disinfecting-cleaning (see other side for details).

Wide Range Disinfecting—Cleaning All in One Application

PREVIEW

BACTERICIDAL - FUNGICIDAL - TUBERCULOCIDAL - PSEUDOMONICIDAL

Hospitals
Institutions
Convalescent Homes
Clinics
Schools
Office Buildings
Transportation terminals
Industrial plants
Public Buildings

ACCEPTED

OCT 16 1967

UNDER THE FEDERAL INSECTICIDE FUNGICIDE AND RODENTICIDE ACT FOR ECONOMIC POISON REGISTERED UNDER NO. 662-32. SUBJECT TO ATTACHED COMMENTS.

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Wyandotte PREVIEW

USDA Reg. No. 652-32

DIRECTIONS FOR USE

ADD PREVIEW TO HOT OR COLD TAP WATER AT THE [illegible] TEMPERATURE AT 2 OUNCES PER GALLON OF WATER.

FOR HEAVY DUTY CLEANING OF [illegible] ADD 8 OUNCES PREVIEW PER GALLON OF WATER.

PREVIEW MAY BE USED AT HIGHER CONCENTRATIONS AS NEEDED FOR MORE DIFFICULT CLEANING JOBS.

PREVIEW SHOULD NOT BE APPLIED WITH MOPS [illegible]

FOR HAND WASHING OF SOILED [illegible] WEAR RUBBER GLOVES.

FLOOR FLUSHING

FOR FLOORS THAT ARE NOT SOILED TO WATER, ADD PREVIEW TO TAP WATER, AT 2 OUNCES PER GALLON, AT 70 TO 74 DEGREES F. USING CLEAN MOPS, APPLY SOLUTION EVENLY. FLOOR IS THEN [illegible] METHOD. ALLOW TO STAND SEVERAL MINUTES, THEN PICK UP WITH ACT VACUUM EQUIPMENT OR ACT ACIDS.

SPRAY DISINFECTING [illegible]

FOR EQUIPMENT, SOILED WALLS & FLOORS, LOCKER ROOMS, USE PREVIEW AT A 1:64 DILUTION. WHERE ITS HAS AVAILABLE A PROPORTIONER, HOSE-SPRAY INJECTOR, WHICH WILL DELIVER [illegible] PREVIEW SOLUTION.

GERMICIDAL DATA

MINIMUM USE DILUTION CONFIRMATION (A.O.A.C. 10TH EDITION):

STAPHYLOCOCCUS AUREUS	1:64
PSEUDOMONAS AERUGINOSA	1:64
SALMONELLA CHOLERAESUIS	1:64
ESCHERICHIA COLI	1:64
TRICHOPHYTON MENTAGROPHYTES	1:64

AT A DILUTION OF 1 TO 32, PREVIEW IS EFFECTIVE AS A GERMICIDE AGAINST [illegible] DETERMINED BY THE PROCEDURE ADOPTED AS OFFICIAL, FIRST ACTION, BY A.O.A.C., 74TH ANNUAL MEETING, OCTOBER 1964 (PUBLISHED A.O.A.C. METHODS, 10TH EDITION, 1965).

DETAILED BACTERIOLOGICAL DATA IS AVAILABLE UPON REQUEST.

PRICES F.O.B.	
1-GALLON PLASTIC JUG	PER CASE OF 4
5-GALLON PAIL	PER GALLON
12-GALLON PAIL	PER GALLON
30-GALLON DRUM	PER GALLON
55-GALLON DRUM	PER GALLON

DIRECTIONS FOR USE
HARMFUL IF SWALLOWED
AVOID BREATHING VAPOR
AVOID CONTACT WITH EYES
LAW & ANTIDOTE ON PACKAGE

Wyandotte Chemicals CORPORATION | J. B. FORD DIVISION
WYANDOTTE • MICHIGAN 48192

Plant Locations • Offices • Major
In Canada: Wyandotte [illegible] • Subsidiary

F6575

TECHNICAL SERVICE BULLETIN

S-95
7/25/67
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ACCEPTED
OCT 16 1967
662 32

J. B. FORD DIVISION
Wyandotte, Michigan

WYANDOTTE CHEMICALS CORPORATION

PREVIEW

Germicidal Liquid Detergent

USES

Preview is used in maintenance cleaning programs wherever the control of bacteria is desired as well as cleaning action.

HOSPITALS, MENTAL INSTITUTIONS, CONVALESCENT HOMES, CLINICS

For routine cleaning of all areas, including operating rooms, emergency rooms, laboratories, and terminal disinfection of patient rooms. Preview may be used on floors, walls, furniture, equipment, waste disposal receptacles, and all other surfaces subject to contamination.

SCHOOLS, OFFICE BUILDINGS, TRANSPORTATION TERMINALS, FACTORIES, PUBLIC BUILDINGS

For cleaning of first aid rooms, locker rooms, shower areas, and lavatories.

BACTERIOLOGICAL AND ANIMAL CARE LABORATORIES, VETERINARIAN CLINICS

For regular building cleaning as well as laboratory benches, cages, examining tables, kennels, and runs.

FEATURES

1. Sure disinfecting - Preview has proven germicidal action against a wide spectrum of organisms.

2. Thorough cleaning - At recommended disinfecting concentrations (2 oz./gal.) Preview cleans thoroughly but will not strip commercial floor polishes.

3. Saves labor - Cleans and disinfects in one operation. Rinsing operation is omitted.

4. Will not harm surfaces - Preview may be used on all surfaces which would not be harmed by water alone.

5. Mild odor - The balanced blend of phenolics in Preview gives effective disinfecting action with a minimum of odor.

6. Deodorizes - Preview not only destroys odors, but removes the cause of odors through its disinfection action.

7. Residual action - Used without rinsing, Preview remaining on surfaces will retard growth of bacteria between cleanings.

EXPLANATION

As was established in the last century, through the work of Pasteur who showed how bacteria growth caused disease, and men like Dr. Joseph Lister, who applied antiseptic procedures in surgery, hospitals must establish meticulous programs of housekeeping and sanitation to prevent spread of infections.

As medical care improves in our modern society, more and larger medical centers are being built at an incredible rate. The larger the institution and the more traffic passing through, the more important becomes the sanitation program.

A total sanitation program in a hospital is concerned with cross infection from many different causes.

By far, in the past, the greatest emphasis has been placed on control in operating areas, where open surgical wounds become a hazardous point where infection can occur. This gives rise to sterilizing of linens, surgical equipment, bandages, instruments, etc., to prevent introduction of germs from items used directly in operating.

Cross contamination throughout a building may be from linen, blankets, and drapes, the carrying of air-borne bacteria by recirculating air in air-conditioning systems, movement of people, both staff and visitors, movement of carts and stretchers. Poor maintenance cleaning techniques and the use of contaminated cleaning equipment can actually spread bacterial contamination instead of reducing it.

With this constant movement of ever-present invisible live organisms, it is impossible to maintain sterile conditions throughout an institution. The aim in good housekeeping is to keep the number of bacteria as low as possible, minimizing locations where bacteria can multiply, and keeping them at a level where natural human immunity can prevent disease.

This is where Preview, a germicidal liquid detergent, plays an important part.

Regular use of Preview, without rinsing, not only kills bacteria upon contact during the wet cleaning process, but leaves a residual film which is bacteriostatic. That is, the residual Preview prevents germs from multiplying, even though not actually killing them.

There is the added advantage of controlling contamination of cleaning equipment. Mops, pails, cloths, sponges, etc., are constantly disinfected while in use. This prevents spreading bacteria as soil is moved around and picked up by the cleaning solution.

Preview thus assists in bacterial population control when used in a sound maintenance cleaning program -- a very important part of a total institutional sanitation program.

HOW TO USE PREVIEW

For general cleaning and disinfecting use 2 fluid ounces of Preview per gallon of water (a 1:64 dilution, one part Preview to 64 parts of water).

For tuberculocidal action, or where an usually high bacteria or soil contamination exists, use 4 fluid ounces of Preview per gallon water (one part of Preview to 32 parts of water)

Although in extremely soiled areas rinsing may be desired, under average soil conditions Preview solutions should not be rinsed, to take full advantage of residual effect.

Use pails and mops which are reserved for Preview alone. Quaternary ammonium disinfectants and fabric softeners or dust laying treatments are not compatible with Preview.

Since germicidal action requires the presence of moisture, best results are obtained if the surface is well wetted with Preview solution and allowed to stand for a few minutes before pickup. On water impervious floors a flooding technique may be desirable.

Where hand cleaning is used, rubber gloves should be worn. If spray applications are used, avoid skin contact and avoid getting in eyes.

GERMICIDAL ACTION

Phenol Coefficient and Use-Dilution Test Results

Standard evaluations of disinfectants are prescribed by the United States Department of Agriculture under the Federal Insecticide, Fungicide and Redenticide Act of 1947. One of these tests is the Phenol Coefficient Test which determines dilutions at which pure phenol and germicide show comparable bacteriological activity. Thus, a product with a phenol coefficient of eight should be as effective as eight times the concentration of pure phenol. The Phenol Coefficient Test, while not a true measure of the efficiency of many germicidal preparations, has considerable validity when applied to the phenolic germicides. Presently tests to confirm the results of the Phenol Coefficient Test are mandatory.

In the journal of the A.O.A.C., May 1955, Stuart, et al discuss the "Use Dilution Procedure" and the significance of phenol coefficient, i.e., " _ _ _ _ _ _ _ _ the results emphasize the unreliability of phenol coefficient numbers as the sole index to practical germicidal values ----------. A result is provided which at best is highly presumptive." In general, the "Use Dilution Procedure" is a far more meaningful measure of practical disinfecting values.

Use-Dilution Confirmation Tests

The tests show whether a disinfectant or a disinfectant cleaner kills bacteria at the dilution recommended by the manufacturer and shown on the label. A one hundred percent kill of the bacteria in the test must be obtained; therefore, a product either passes or fails. A passing test is required for both Staphylococcus aureus (ATCC 6538) and Salmonna choleraesuis (ATCC 10708), as these are versatile representatives of both the gram positive and gram negative pathogenic micro-organisms. A Phenol Coefficient Test is mandatory for Salmonella typhosa (ATCC 6539), but not a

Use-Dilution Test as this organism does not survive the drying stage of the test.

The following tables show both standard Phenol coefficient and use-dilution data confirming the claims made for Preview.

TABLE I

PHENOL COEFFICIENT TEST

10th Edition A.O.A.C., Time 10 Min., Temp 20° C.

Micro-organism	Phenol Coefficient
Staphylococcus aureus (FDA 209, ATCC 6538)	8.0
Salmonella Typhosa Hopkins Strain 26 (FDA, ATCC 6539)	9.5
Escherichia coli 198 (ATCC 11229)	10.0
Proteus mirabilis (ATCC 9921)	7.5

TABLE II

USE-DILUTION CONFIRMATION TESTS

10th Edition A.O.A.C., Time 10 min., Temp. 20° C.

Organism	No. Tubes (+) (Growth)	No. Tubes (-) (No Growth)
Staphylococcus aureus (ATCC 6538)	0	10
Salmonella choleraesuis (ATCC 10708)	0	10
Escherichia coli (ATCC 11229)	0	10

The following table demonstrates the speed of action of Preview against typical micro-organisms of the gram positive and gram negative groups; all are pathogens except Aerobacter aerogenes.

TABLE III

CRITICAL KILLING CONCENTRATIONS OF PREVIEW

9th Edition Phenol Coefficient Procedure, Temp. 20° C.

	1 Min.	5 Min.	10 Min.	% Phenol Resistance
Escherichia - coli (ATCC 11229)	1/300	1/450	1/650	1/80
Staphylococcus aureus (ATCC 6538)	1/250	1/350	1/550	1/65
Pseudomonas aeruginosa (PRD10, ATCC 15442)	1/55	1/80	1/80	1/85
Bacterium ammoniagenes	1/100	1/300	1/350	1/85
Aerobacter aerogenes	1/450	1/550	1/550	1/85
Proteus mirabilis (ATCC 9921)	1/250	1/550	1/600	1/80

Fungicidal Activity of Preview

Preview passes the A.O.A.C. Fungicidal Test (10th Edition) at dilution of 1/135. The organism used in this test is Trichophyton interdigitale (Emmon's No. 640). It is a pathogenic fungus and causes athletes foot in humans. The official test required that products making fungicidal claims for this organism should kill the test organism in 10 minutes at the recommended use-dilution. Since Preview kills the test organism in 10 minutes at 1/135, and our recommended use dilution is 1/6--, fungicidal claims are well substantiated.

Tuberculocidal Activity of Preview

Wyandotte Preview is germicidal to M. tuberculosis H 37Ra when used at a dilution of 1:32 with water.

The procedure used was that evaluated in a collaborative study supervised by Dr. L. S. Stuart of the USDA, and adopted as official, First Action, by the association of Official Agricultural Chemists at the 78th annutal meeting, 1964 (Published Methods AOAC, 10th Edition, 1965).

TABLE IV

ACTIVITY OF PREVIEW IN PRESENCE OF ORGANIC MATTER

Horse Serum was Added to Stock Solution of Preview in Ratio Indicated and Then Diluted Serially for Standard Phenol Coefficient Per 10th Edition

A.O.A.C., Staphylococcus aureus, Room Temperature

Ratio Horse Serum to Preview	Exposure Min.	Dilution Preview 1/64	1/100	1/120	1/300	1/400	1/500	1/600
2.5/1	5	-	-	-	+	+	+	+
	10	-	-	-	-	+	+	+
5/1	5	-	-	+	+	+	+	+
	10	-	-	-	+	+	+	+
Control (No Serum)	5	-	-	-	-	-	+	+
	10	-	-	-	-	-	-	+

It can be seen that Preview retains much of its activity in presence of horse serum, which is commonly used in organic load testing.

Test Performed to Determine Efficiency of Preview under Actual Use Conditions

A twenty-four hour culture of Staphylococcus aureus (ATCC 6538) was diluted 1 to 5 to 2$\frac{1}{2}$ times 10^5 per ml. with nutrient broth and applied to the test area (asphalt floor tiles) with a hand mop. The inoculum was then allowed to air dry for 10 to 15 minutes. Swab samples were taken of the inoculated tiles before wet mopping with

the test solutions, only Preview at 1/64, 0.5% neutral soap and another phenolic germicide at recommended dilution. After 10 minutes the excess clearing solutions were removed with the same mop used for the initial application and swabs were taken of the test areas. After a further drying period of 20 minutes, contact plates were applied to the test areas which were then completely dry. Results of this performance test are tabulated in Table V. From the tabulated results, it can be seen that Preview is very effective against Staphylococcus aureus (ATCC 6538) under these conditions. It is vastly superior to soap and better than the other phenolic germicides tested.

TABLE V

BACTERIA COUNTS ON ASPHALT TILE FLOOR

Total Counts Per Swab, 24 Hours, 35° C.

Swab No.	A		B		C	
	Before	After	Before	After	Before	After
1	81500	3200	150000	17500	62500	5200
2	24500	1450	11000	26000	200000	2000
3	10000	1100	200000	21000	24500	350
4	36500	465	8500	31000	40000	700
5	131500	525	20000	27500	32500	1600
% Kill	98		69		97	
Contact Plate No.						
1	50		300		150	
2	6		300		200	
3	10		300		140	
4	14		200		100	
5	13		100		90	
	93		1200		680	
Average	19		240		136	

A. Inoculum applied, washed with Preview at 1/64.
B. Inoculum applied, washed with 0.5% neutral soap.
C. Inoculum applied, washed with another phenolic germicide at recommended dilution.

Residual Antibacterial Effect

The phenolic germicides contained in Preview are non-volatile and leave a residue on treated surfaces. This residue can prevent multiplication of organisms contacting the surface, but will not kill them or shrink colonies formed by moisture also happen to be present. This residual action is an important factor in any germicidal preparation [illegible] prevention of cross infection of food exhibiting or handling equipment [illegible].