#### **USE DIRECTIONS**

FARM BULK TANKS, MILKING UTENSILS AND EQUIPMENT, BEVERAGE AND FOOD PROCESSING EQUIPMENT

- A. Clean equipment immediately after use.
  - 1. Rinse—with clean water, not hot.
  - 2. Wash—with either Kelochlor® (Manual) or Aspect® (CIP) solution at the recommended concentration.
  - 3. Rinse—with clean water.
  - 4. Air Dry-protect from dust and dirt.
- B. Sanitize immediately before re-use, with Wyan-dotte Accord solution, ½ oz. to 5 gal. of water (12½ ppm titratable iodine).
- C. For specific disinfecting directions, see product bulletin.

#### **UDDER WASHING**

- 1. Wash udder before milking with Accord solution, 1 oz. to 5 gal. of lukewarm water (25 ppm titratable iodine).
- 2. Use a clean single service towel for each animal. Never reuse towel or dip used towel back into solution. Always use freshly prepared solutions and non-corrodible utensils.
- 3. After milking, dip each teat in a teat dip such as Wyandotte Tilcon®. Follow label directions for use.

Accord fulfills the criteria of Appendix F, of the Grade "A" Pasteurized Milk Ordinance 1965 Recommendations of the USPHS in water up to 500 ppm of hardness calculated as CaCo<sub>3</sub> when tested by the AOAC Germicidal and Detergent Sanitizers—Official Method.

**EPA REG. NO. 662-37** 

## Wyandott lodine **ACTIVE INGREDIENTS** alpha-Alkyl\*-omega-hydroxy-poly (oxypropylene)-iodine complex (f 1.75% Titratable lodine)..... Phosphoric Acid...... INERT INGREDIENTS..... TOTAL \*(C1043%, C1212%, C1430%, C1610%, DANGER: Keep o and other precaut lainer thoroughly i INSECTICIDE

BASF

DILUTION

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#### **USE DILUTIONS**

	Fluid	ppm Titratable	
Application	5 gal.	100 gal.	lodine
Sanitizing of cleaned		_	
equipment	1/2	10	121/2
Cleaning	1	20	25
Sanitizing by spraying	1	20	25
Udder washing	1	20	25

For disinfecting cleaned equipment, use 1 oz. of Accord to 5 gals. of water, providing 25 ppm or more titratable iodine.

Solutions of Accord must be made with water under 120° F. Yellow color indicates presence of titratable iodine. When color fades, renew solutions.

## **DANGER**

CORROSIVE: KEEP OUT OF REACH OF CHILDREN May be fatal if swallowed. Do not breathe vapor or fumes. May produce chemical burns. Do not get in eyes, on skin, or on clothing. Rinse empty container thoroughly with water and discard it.

## **ANTIDOTE**

INTERNAL—Call a physician immediately. Drink a teaspoonful or more of magnesia, chalk, or small pieces of soap, softened with water in milk or raw egg white.

EXTERNAL—Eyes—Wash with water for 15 minutes. Get prompt medical attention. Skin—wipe off the acid gently, immediately flood the surface with water, using soap freely, then cover with moist magnesia or baking soda.

Wyandotte™

# ACCORD®

## lodine Detergent Germicide

ACTIVE INGREDIENTS	A	CTIV	/E I	NG	RED	<b>IEN</b> 7	rs
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alpha-Aikyl*-omega-hydroxy-poly (oxyethylene) poly	
alpha-Alkyl*-omega-hydroxy-poly (oxyethylene) poly (oxypropylene)-iodine complex (Providing	
1.75% Titratable lodine)	18.50%
Hydrogen Chloride	
Phosphoric Acid	
INERT INGREDIENTS	
TOTAL	100.00%

#### **AOAC USE-DILUTION**

CAUTION-MUST BE DILUTED BE-FORE USING

TED

DANGER: Keep out of reach of children. See antidote statement and other precautions on right side panel. Rinse empty conainer thoroughly with water and discard it.

FOR INDUSTRY USE ONLY

CONTENTS ONE GALLON

INSECTICIDE

BASF

\*(C1043%, C1212%, C1430%, C1610%, C185%)



BASF Wyandotte Corporation Chemical Specialties Division Wyandotte, Michigan 48192 Wyandotte<sup>TM</sup>

## ACCORD

## lodine Detergent Germicide

ACTIVE INGREDIENTS	AOAC USE-DILUTION
alpha-Alkyl*-omega-hydroxy-poly (oxyethylene) poly (oxypropylene)-iodine complex (Providing 1.75% Titratable lodine) Hydrogen Chloride 5.48%	Staphylococcus aureus 1:640 Salmonella choleraesuis 1:640 Pseudomonas aeruginosa 1:640 Salmonella typhosa 1:640
Phosphoric Acid         5.25%           INERT INGREDIENTS         70.77%           TOTAL         100.00%	CAUTION-MUST BE DILUTED BE- FORE USING
*(C1043%, C1212%, C1430%, C1610%, C185%)	

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DANGER: Keep out of reach of children. See antidote statement and other precautions on right side panel. Rinse empty container thoroughly with water and discard it.

FOR INDUSTRY USE ONLY

CONTENTS ONE GALLON

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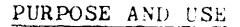
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## **Technical Service Bulletin**

ACCORD

#### IODINE DETERGENT - SANITIZER & GERMICIDE

EPA Reg. No. 662-37



For cleaning, sanitizing, or disinfecting all types of food and beverage equipment in dairies, dairy farms, food plants and breweries.

ACCORD is especially recommended as an udder wash when used at concentrations of loz, per a gallons of water (see ppm).

#### ADVANTAGES OF ACCORD

- 1. Rapid disinfecting action.
- 2. Clear yellow solutions show presence of iodine.
- 3. Effective in hard water, even up to 30 grains per gallon hardness.
- 4. Low odor level.
- 5. Shows up dirty equipment by coloring milksto e or other films.

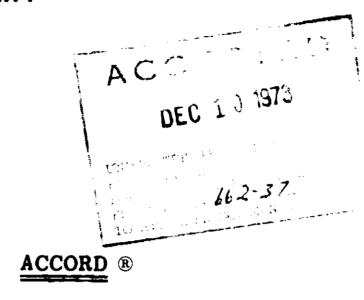
#### EFFECTIVENESS

ACCORD can be used as a germicide as well as a sanitizer. Evaluations of germicides are more stringent than for sanitizers because in the standard laboratory test AOAC Use-Dilution Test; a germicide must destroy all organisms, whereas a sanitizer may allow a small number of organisms to survive. Use-Dilution Test results indicate that ACCORD at the dilution of 1:140 disinfects the organisms shown in Table 1. ACCORD also passes the AOAC Germicidal and Detergent Test. See Table 11.

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BASF Wyandotte Corporation
Chemical Specialties Division
Wyandotte, Michigan 48192

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### **Technical Service Bulletin**





#### IODINE DETERGENT - SANITIZER & GERMICIDE

EPA Reg. No. 662-37

#### PURPOSE AND USE

For cleaning, sanitizing, or disinfecting all types of food and beverage equipment in dairies, dairy farms, food plants and breweries.

ACCORD is especially recommended as an udder wash when used at concentrations of 1 oz. per 5 gallons of water (25 ppm).

#### ADVANTAGES OF ACCORD

- 1. Rapid disinfecting action.
- 2. Clear yellow solutions show presence of iodine.
- 3. Effective in hard water, even up to 30 grains per gallon hardness.
- 4. Low odor level.
- 5. Shows up dirty equipment by coloring milkstone or other films.

#### EFFECTIVENESS

ACCORD can be used as a germicide as well as a sanitizer. Evaluations of germicides are more stringent than for sanitizers because in the standard laboratory test (AOAC Use-Dilution Test) a germicide must destroy all organisms, whereas a sanitizer may allow a small number of organisms to survive. Use-Dilution Test results indicate that ACCORD at the dilution of 1:640 disinfects the organisms shown in Table I. ACCORD also passes the AOAC Germicidal and Detergent Test. See Table II.

TABLE I

AOAC USE DILUTION TEST - 11TH ED., 1970

ACCORD at 1 Oz./5 Gal.

in 500 ppm Hard Water (as CaCO<sub>3</sub>)

Organism	Phenol Resistance of Organisms	Number of Tests* Showing Complete Destruction of Organisms
Stuphylococcus aureus (ATCC 6538)	1:60	10/10
Pseudomonas aeruginosa (ATCC 15442)	1:80	10/10
Salmonella typhosa (ATCC 6539)	1:90	10/10
Salmonella choleraesuis (ATCC 10708)	1:90	10/10
Escherichia coli (ATCC 11229)	1:95	10/10
Streptococcus lactis (ATCC 11454)	1:75	10/10
Proteus vulgaris (ATCC 8427)	1:90	10/10
Klebsiella pneumonia (E coli aberrant) (ATCC 4352)	1:85	10/10

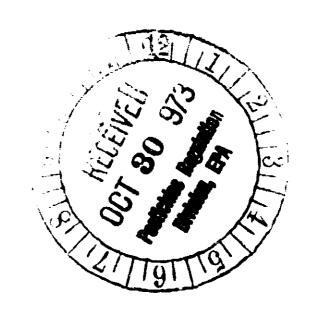
#### AOAC FUNGICIDAL TEST - 11TH ED., 1970

## Trichophyton mentagrophytes (ATCC 9533)

		Phenol Resistance Time				
	Dilution	5 min.	10 min.	15 min.		
ACCORD	1:640	-	-	-		
Phenol Control	1:45	+	-	-		
Phenol Control	1:60	+	+	+		

<sup>\*</sup> A sufficient number of repeated tests were performed to statistically verify test results.

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### TABLE II

## AOAC GERMICIDAL AND DETERGENT SANITIZER TEST

Minimum Time (in Seconds) to Obtain 99.99% Kill of Various Test Organisms with ACCORD

	Distilled Water ppm Titratable Iodine		Hard Water (500 ppm) ppm Titratable Iodine			Hard Water (500 ppm) Whole Milk Added 1.0% 0.1% ppm Titratable Iodine		
Test Organism	<u>25</u>	12.5	6.25	<u>25</u>	12.5	6.25	<u>25</u>	12.5
Salmonella typhosa Hopkins Strain 26 (FDA)	15	15	<b>1</b> 5	15	<b>1</b> 5	15	30	30
Staphylococcus aureus (ATCC 6538)	15	15	30	15	15	30	30	30
Escherichia coli (ATCC 11229)	<b>1</b> 5	15	30	<b>1</b> 5	15	30	60	60
Pseudomonas aeruginosa (ATCC 15442)	<b>1</b> 5	<b>1</b> 5	15	15	<b>1</b> 5	<b>1</b> 5	60	30

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Solutions of ACCORD are normally recommended in concentrations of 12-1/2 to 25 ppm titratable iodine. A concentration of 12-1/2 ppm iodine is as effective as 200 ppm available chlorine as hypochlorite as determined by the Available Chlorine Germicidal Equivalent Concentration Method (See Table III).

ACCORD is as effective in hard water (500 ppm) against four commonly selected test organisms as it is in distilled water. Even when 1% whole milk is added, ACCORD is still effective; although, 30 to 60 seconds are required to obtain the desired kill rather than 15 seconds without organic matter present. (See Table II.)

Results of tests made by an independent laboratory showed that 12-1/2 ppm titratable iodine from ACCORD destroys approximately twice the number of Salmonella typhosa organisms as 100 ppm of chlorine obtained from sodium hypochlorite under equal conditions. (See Table III.)

TABLE III

## COMPARISON OF ACCORD WITH SODIUM HYPOCHLORITE BY THE AVAILABLE CHLORINE GERMICIDAL EQUIVALENT CONCENTRATION METHOD - AOAC 10th ED., 1965

#### Increments of Culture Disinfected

	pp	ACCORD m Titrat Iodine		Sodium Hypochlorite ppm Available Chlorine						
Test Organism	<u>25</u>	12.5	6.25	200	100	50				
Salmonella typhosa	10	6	3	6	3	2				
Hopkins Strain 26 (FDA)	10	6	2	6	4					
Staphylococcus aureus (ATCC 6538)	10 8	3 3	1	3 3	5 5	<b>1</b> 0				
Escherichia coli	10	6	3	5	3	0				
(ATCC 11229)	10	5	2	3	2					
Pseudomonas aeruginosa	9	6	2	2	2	1				
(ATCC 15442)	9	5	1	3	1	1				

#### CORROSION

ACCORD is non-corrosive to stainless steel when used as directed.

ACCORD, like other indine products, is not enumer to dairy tim, brass, etcome clate, the content essential very short.

#### USE DIRECTIONS

Farm Bulk Tanks, Milking Utensils and Equipment Beverage a Processing Equipment:

- A. Clean equipment immediately after use.
  - 1. Rinse with clean water, not not.
  - 2. Wash with Wyandotte KELOCHLOR\* manual cleaner or Wyandotte ASPECT \* (CIP cleaner at the recommender concentration.
  - 3. Rinse with clean water.
  - 4. Air dry protect from dust and dirt.
- B. Sanitize immediately before reuse, with Wyandotte ACCORD solution, 1/2 oz. to 5 gal. of water (12-1/2 ppm titratable iodine).

For sanitizing by spray, use ACCORD at 1 oz. per 5 gal. of water (25 ppm titratable iodine).

#### Udder Washing:

- 1. Wash udder before milking with ACCORD solution, 1 oz. to 5 gal. of lukewarm water (25 ppm titratable iodine).
- 2. Use a clean single service towel for each animal. Never reuse towel or dip used towel back into solution. Always use freshly prepared solutions and non-corrodible utensils.
- 3. After milking, dip each teat in a teat dip such as Wyandotte TILCON. Follow label directions for use.

#### Use Dilutions:

	Fluid Ou 5 gal.	nces Per 100 gal.	<b>p</b> p <b>m</b>
Application	water	water	Titratable Iodine
Sanitizing of cleaned equipment	1/2	10	12-1/2
Cleaning	1	20 1-1 007	30 972 E 25
Sanitizing by spraying	1	20 E Preside	Analytics 25
Udder Washing	1	20	25

Disinfecting of cleaned equipment: Use 1 oz. per 5 gals. of water, providing 25 ppm or more titratable iodine.

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Solutions of ACCORD must be made with water under 120° F.

Yellow color indicates presence of titratable iodine. When color fades, renew solutions.

In waters over 30 grains per gallon hardness, use sufficient ACCORD to obtain a pH between 2 and 4 in use solutions.

#### PHYSICAL PROPERTIES

ACCORD is a dark brown, non-viscous liquid, having a slight characteristic odor. It is stable up to 120° F. When dissolved in water, solutions in use concentration are yellow in color.

ACCORD will freeze at approximately the same temperature as water but after melting, returns to its original condition with no loss of effectiveness.

#### CHEMICAL PROPERTIES

The pH of a 25 ppm solution (1 oz. of ACCORD in 5 gallons of soft water) is 2.6.

Titratable iodine is 1.75% minimum, specific gravity at 25° C. is 1.084, and the viscosity is about the same as water.

#### Active ingredients:

Alpha-Alkyl (C <sub>10</sub> omega-hydroxy-p complex (Provide	ling	1	• (	<b>7%</b>	T	iti	ra'	tal	<b>51</b> 6	8	Ιo	di:	ne	) _	_		_	18.50%
Hydrogen Chloride Phosphoric Acid	• •	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	<ul><li>5.48%</li><li>5.25%</li></ul>
Inert ingredients: .		•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	.70.77%
TOTAL																		100.00%

#### HANDLING PRECAUTIONS

#### DANGER

CORROSIVE: KEEP OUT OF REACH OF CHILDREN. May be fatal if swallowed. Do not breathe vapor or fumes. May produce chemical burns. Do not get in eyes, on skin, or on clothing.

Rinse empty container thoroughly with water and discard it.

#### ANTIDOTE:

Internal - Call a physician immediately. Drink a teaspoonful or more of magnesia, chalk, or small pieces of soap, softened with water in milk or raw egg white.

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External - Eyes - Wash with water for 15 minutes. Get prompt medical attention. Skin - Wipe off the acid gently, immediately flood the surface with water, using soap freely, then cover with moist magnesia or baking soda.

#### TITRATABLE IODINE DETERMINATION

The yellow color of the solution denotes the presence of titratable iodine. The minimum titratable iodine detectable visually is about 5 ppm. Presence of organic matter in solutions makes detection of the yellow color difficult and the visual technique is not recommended as a means of controlling the strength of such solutions.

The Wyandotte Iodine Test Kit should be used for determining the titratable iodine in use solutions.

#### TEST KIT PROCEDURE

- 1. Measure 200 mls. of use solution in a bottle (8 oz. bottle is suitable).
- 2. Add 3 spoonfuls of Reagent A and invert sample three times. If dark iodine color does not appear, insufficient iodine is present for effective germicidal action.
- 3. Add Reagent C drop by drop, holding the dropper at an angle of 45°. Shake solution after each dilution.
- 4. The endpoint is reached when addition of a drop of Reagent C causes a color change from pale yellow to colorless.
- 5. To determine the titratable iodine in use solutions, the following formula should be used:

Number of drops of Reagent  $C \times 2.1 = ppm$  titratable iodine

Example: Size of sample --- 200 ml.

Number of drops of Reagent C --- 12

Calculation: 12 x 2.1 = 25 ppm

titratable idone.

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## Wyandotte<sup>®</sup> ACCORD<sup>®</sup>

#### **lodine Detergent Germicide**

- Outstanding as an udder wash when properly diluted
- For cleaning, sanitizing or disinfecting

#### **BENEFITS**

- 1. Rapid disinfecting action.
- 2. Clear yellow solutions show presence of iodine.
- 3. Effective in hard water.
- 4. Low odor level.
- Shows up dirty equipment by coloring milkstone or other films.

#### **EFFECTIVENESS**

Accord can be used as a germicide as well as a sanitizer. Evaluations of germicides are more stringent than for sanitizers because in the AOAC Use-Dilution test a germicide must destroy all standard organisms. A sanitizer may allow a small number of organisms to survive.

#### **AOAC USE-DILUTION**

Staphylococcus aureus 1:640
Salmonella choleraesuis 1:640
Pseudomonas aeruginosa 1:640
Salmonella typhosa 1:640

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CHAMBERS TEST: Fulfills the criteria of Appendix F, the Grade "A" Pasteurized Milk Ordinance 1965 Recommendations of the USPHS in waters up to 500 ppm hardness calculated as CaCO<sub>3</sub> when tested by the AOAC Germicidal and Detergent Sanitizers—Official Method.

## Wyandotte **ACCORD**

EPA REG. No. 662-37

#### **USE DIRECTIONS**

#### **UDDER WASHING**

- 1. Wash udder before milking with Accord solution, 1 oz to 5 gal of lukewarm water (25 ppm titratable iodine).
- 2. Use a clean single service towel for each animal. Never reuse towel or dip used towel back into solution. Always use freshly prepared solutions and non-corrodible utensils.
- 3. After milking, dip each teat in a teat dip such as Wyandotte Tilcon. Follow label directions for use.

## FARM BULK TANKS. MILKING UTENSILS AND EQUIPMENT, BEVERAGE AND FOOD PROCESSING EQUIPMENT

- A. Clean equipment immediately after use.
  - 1. Rinse-with clean water, not hot.
  - 2. Wash with either Kelochlor (Manual) or Aspect (CIP) solution at the recommended concentration.
  - 3. Rinse-with clean water.
  - 4. Air dry-protect from dust and dirt.
- B. Sanitize immediately before re-use, with Wyandotte Accord solution, 12 oz. to 5 gal. of water (1212 ppm titratable iodine).

For sanitizing by spray, use Accord at 1 oz. per 5 gal. of water (25 ppm titratable iodine).

C. Disinfection of cleaned surfaces immediately before re-use, use 1 oz. of Ancord per 5 gal. of water providing 25 ppm or more titratable iodine.

USE DILU	TIONS TABLE			NOTE:
Application		inces per 100 gal. water	ppm titratable iodine	Sclutions of Accord must be made with water under 120 F.
Sanitizing of cleaned equipment	19	10	121:	Yellow color indicates
Cleaning	1	20	25	presence of titratable :
Sanitizing by spraying	<b>4</b> ;	20	25	When color fades.
Udder was hing	1	20	25	renew solutions.

#### DANGER

CORROSIVE: KEEP OUT OF REACH OF CHILDREN. May be fatal if swallowed. Do not breathe vapor or fumes. May produce chemical burns. Do not get in eyes, on skin, or on clothing. Rinse empty container thoroughly with water and discard it.

#### ANTIDOTE

INTERNAL—Call a physician immediately. Drink a teaspoonful or more of magnesia, chalk, or small pieces of soap, softened with water in milk or raw egg white.

**EXTERNAL**—Eyes -Wash with water for 15 minutes. Get prompt medical attention, Skin—wipe off the acid gently, immediately flood the surface with water, using soap freely, then cover with moist magnesia or baking soda.

NOTE. ACCORD TEST KITS ARE AVAILABLE AT NO CHARGE FROM YOUR BASE WYANDOTTE REPRESENTATIVE





**BASF Wyandotte Corporation**Chemical Specialties Division

Wyandotte, Michigan 48192