

2052



# MIRAQUAT 256

Highly Concentrated Germicide Based on a Unique Blend of Quaternaries with Organic Soil Load Tolerance

**ACTIVE INGREDIENTS:**

Octyl Decyl Dimethyl Ammonium Chloride	3.750%
Dioctyl Dimethyl Ammonium Chloride	1.875%
Didecyl Dimethyl Ammonium Chloride	1.875%
Alkyl (C14, 50%, C12, 40%, C16, 10%) Dimethyl Benzyl Ammonium Chloride	5.000%
<b>INERT INGREDIENTS</b>	<b>87.500%</b>
	100.000%

**Disinfectant-Cleaner-Sanitizer-Fungicide  
Mildewstat-Virucide\* — Deodorizer for Hospitals**  
1/2 Ounce Per Gallon

**For Sale to, Use, and Storage by Maintenance Personnel**

**MIRAQUAT 256 WILL NOT AFFECT CONDUCTIVE FLOORING**

**DANGER: Keep Out of Reach of Children**

See side panel for additional precautionary and first aid statements.

MIRACLE CHEMICALS, INC., 902 2nd Avenue North, Grand Forks, ND 58201

E.P.A. Reg. No. 5579-3  
E.P.A. Est. No. 5579-ND-1

## DIRECTIONS FOR USE

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

Cross-contamination is of major housekeeping concern not only in hospitals, but in schools, institutions, and industry. Miraquat 256 is formulated for this problem area. It both cleans and disinfects effectively and is virucidal when used as directed. Its hard surface disinfecting action will reduce the hazard of cross-contamination from environmental surfaces.

When used as directed, Miraquat 256 will deodorize toilet areas, behind and under sinks and counters, garbage cans and other inanimate surfaces, and will inhibit the growth of mold and mildew and their odors when used as directed.

This product is economical to use because it is highly concentrated and should be handled with care.

Miraquat 256 is a proven "one-step" cleaner-disinfectant-sanitizer-fungicide-virucide in the presence of moderate amounts of organic soil.

Apply Miraquat 256 to walls, floors and other hard (non-porous) non-porous surfaces such as tables, chairs, countertops, sinks and hardware with a cloth, mop or mechanical spray device so as to thoroughly wet surfaces. For heavily soiled areas, a preliminary cleaning is required. Prepare a wash solution daily or when use solution becomes visibly dirty.

**Disinfectant** — To disinfect hard, non-porous surfaces, add 1/2 oz per gallon of water. Treated surfaces must remain wet for 10 minutes. At this use-level, Miraquat 256 is also virucidal and fungicidal.

**Sanitizer** — To sanitize porous or non-porous, non-food contact surfaces, add 1/2 oz per gallon of water.

1/2 oz. per gallon use-level. The broad spectrum activity of Miraquat 256 has been evaluated in the pre-

sence of 5% serum and found to be effective against the following by the A.J.C.C. (The Disk Test):

- Pseudomonas aeruginosa
- Staphylococcus aureus
- Salmonella choleraesuis
- Escherichia coli
- Klebsiella pneumoniae
- Enterobacter aerogenes
- Salmonella schottmulleri
- Streptococcus faecalis
- Shigella dysenteriae
- Brevibacterium ammoniagenes

**AOAC Fungicidal Test** Miraquat 256 is effective against Trichophyton mentagrophytes (the athlete's foot fungus) when used on surfaces in areas such as locker rooms, shower and bath areas, exercise areas, dressing rooms, etc.

**Mildewstat Performance.** At 1/2 oz/gallon, Miraquat 256 will effectively inhibit the growth of mold and mildew and its odor caused by them when applied to hard, non-porous surfaces (see instructions and label for details). Allow to dry on surface and repeat when mildew growth returns.

**Virucidal Performance.** At 1/2 oz per gallon use level, Miraquat 256 was evaluated in the presence of 10% serum and found to be effective against the following viruses: Herpes Simplex (a member of the virus family that causes infectious mononucleosis), Vaccinia (responsible for the pox viruses), and Influenza A-2 (the Hong Kong flu virus) (resistant environmental surfaces).

**Sanitizing-Non-Contact Surfaces** (such as floors, walls, tables, etc.) At 1/2 oz per gallon use-level, 30 second contact time, Miraquat 256 is an effective sanitizing agent in waters of up to 600 ppm hardness against Staphylococcus aureus and Klebsiella pneumoniae in the presence of 5% serum on porous and non-porous environmental surfaces.

NOT REVIEWED

In Accordance with PR Notice 82-2.  
Based on Draft Labeling Dated

AUG 09 1984

**BEST AVAILABLE COPY**

infectious damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsion may be needed.

consult Federal, State or local health authorities for approved alternative procedures such as limited open burning.

**INERT INGREDIENTS**

87.500%  
100.000%

E.P.A. Reg. No. 5579-3

E.P.A. Est. No. 5579-ND-1

**MIRACLE**

**Guarantee:** Miracle's modern manufacturing and laboratory control insure uniform quality. All products manufactured by Miracle Chemicals Inc. are unconditionally guaranteed when used as directed. Any unused portion may be returned for credit.

**BEST AVAILABLE COPY**

20 201-3 1053

U.S. ENVIRONMENTAL PROTECTION AGENCY OFFICE OF PESTICIDES PROGRAMS REGISTRATION DIVISION (WH-567) WASHINGTON, D.C. 20460  <b>NOTICE OF PESTICIDE:</b> <input type="checkbox"/> REGISTRATION <input type="checkbox"/> REREGISTRATION (Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended)	EPA REGISTRATION NO. 5579-3	DATE OF ISSUE <b>09 AUG 1984</b>
	TERM OF ISSUANCE <b>09 AUG 1984</b>	
	NAME OF PESTICIDE PRODUCT Miracquat 450	

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

Miracle Chemicals, Inc.  
902 University Avenue  
Grand Forks, ND 58201

**BEST DOCUMENT AVAILABLE**

**NOTE:** Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with (c)(1) of the Act (A) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(2) when the Act requires constraints or similar products to submit such data.
2. Make the labeling changes listed below regarding the front panel:
  - a. Add the phrase "EPA Registration No. 5579-3" to the front panel.
  - b. For the label size submitted, the label must include the Child Hazard Warning "KEEP OUT OF REACH OF CHILDREN" require a 12 point type size minimum for the front panel (front panel only) would require an 18 point type size.
  - c. Delete the number 5579-XX from the label as the registration number.
  - d. The statement "FOR SALE FOR USE BY PROFESSIONAL PERSONNEL ONLY" must be at least the same size as the "KEEP OUT OF REACH OF CHILDREN" statement (front panel) be placed in the upper front panel.

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL \_\_\_\_\_ DATE \_\_\_\_\_

EPA Form 8570-A (Rev. 5-74)

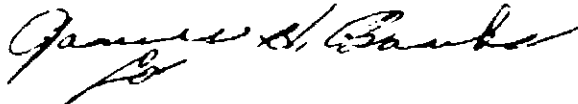
3. The revised Confidential Statement of Formula submitted July 23, 1984 is acceptable and has been placed in your file.

4. The confirmatory data submitted June 15, 1983, are acceptable and have been assigned the Accession Number 250633.

5. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 Enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.



John H. Lee  
Product Manager (31)  
Disinfectants Branch  
Registration Division (TS-767C)

RD-DIS:Lee:DCR-4468z:WANG-0013f:mar:Raven:479-2013:8/6/84:Del.8/21/84

BEST DOCUMENT AVAILABLE

Cross-contamination is of major housekeeping concern not only in hospitals, but in schools, institutions, and industry. **Miraquat 256** is formulated for this problem area. It both cleans and disinfects effectively and is virucidal when used as directed. Its hard surface disinfecting action will reduce the hazard of cross-contamination from environmental surfaces.

When used as directed, **Miraquat 256** will deodorize toilet areas, behind and under sinks and counters, garbage cans and garbage storage areas, and will inhibit the growth of mold and mildew and their odors when used as directed.

This product is economical to use because it is highly concentrated and should be handled with care.

**Precautionary Statements**

**Hazards to Humans and domestic animals**

**DANGER**

Keep out of reach of children. Corrosive. Causes severe 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.

**STORAGE AND DISPOSAL**

- DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL
- OPEN DUMPING IS PROHIBITED
- DO NOT REUSE EMPTY CONTAINER

**PESTICIDE DISPOSAL**

PESTICIDE, SPRAY MIXTURE OR RINSATE THAT CANNOT BE USED OR CHEMICALLY REPROCESSED SHOULD BE DISPOSED OF IN A LANDFILL APPROVED FOR PESTICIDES OR BURIED IN A SAFE PLACE AWAY FROM WATER SUPPLIES

**CONTAINER DISPOSAL**

TRIPLE RINSE (OR EQUIVALENT) AND DISPOSE IN AN INCINERATOR OR LANDFILL APPROVED FOR PESTICIDE CONTAINERS, OR BURY IN A SAFE PLACE

**GENERAL**

CONSULT FEDERAL, STATE OR LOCAL DISPOSAL AUTHORITIES FOR APPROVED ALTERNATIVE PROCEDURES SUCH AS LIMITED OPEN BURNING

ACCEPTED WITH COMMENTS  
AUG 03 1984

5579-3

**MIRAQUAT 256**  
**Highly Concentrated Germicide**  
**Based on a Unique Blend of Quaternaries**  
**with Organic Soil Load Tolerance**  
**Disinfectant-Cleaner-Sanitizer-Fungicide**  
**Mildewstat-Virucide\*—Deodorizer for Hospitals-**  
**Institutional and Industrial Use**

**Active Ingredients**

Octyl Decyl Dimethyl Ammonium Chloride	3.750%
Dioctyl Dimethyl Ammonium Chloride	1.875%
Didecyl Dimethyl Ammonium Chloride	1.875%
Alkyl (C <sub>14</sub> , 50%; C <sub>12</sub> , 40%; C <sub>16</sub> , 10%)	
Dimethyl Benzyl Ammonium Chloride	5.000%

**Inert Ingredients**

87.500%

100.000%

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

**Statement of Practical Treatment**

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, as well as oxygen and measures to support breathing manually or mechanically may be needed. If persistent, convulsions may be controlled by the cautious intravenous injection of a short-acting barbiturate drug.

**SEE LEFT PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS**

EPA Registration No.	5579-XX
EPA Establishment No.	5579-ND-1
Net Contents	

Manufactured By:  
Miracle Chemicals Inc., 902 Univ. Ave., Grand Forks, ND 58201

FOR SALE TO THE PUBLIC BY MAINTENANCE PERSONNEL ONLY

**BEST AVAILABLE COPY**

**BEST DOCUMENT AVAILABLE**

**GENERAL**

It is a violation of the Federal Insecticide, Fungicide, and Rodenticide Act to sell or distribute any product in a labeling which bears a false or misleading statement.

**Miraquat 256** is a highly concentrated germicide based on a unique blend of quaternaries with organic soil load tolerance. It is a disinfectant-cleaner-sanitizer-fungicide, mildewstat-virucide, and deodorizer for hospitals, institutional and industrial use. It is effective against a wide range of bacteria, fungi, and viruses. It is also virucidal.

**Disinfection** — To disinfect hard surfaces, use 1/2 oz. per gallon of solution for 10 minutes. Air drying is also virucidal.

**Sanitizing** — To sanitize contact surfaces, use 1/4 oz. per gallon of solution. **Miraquat 256** is also virucidal. **ADAC Fungicide** — **Miraquat 256** is effective against a wide range of fungi, including *Pseudomonas*, *Staphylococcus*, *Salmonella*, *Escherichia*, *Klebsiella*, *Enterobacter*, *Salmonella*, *Streptococcus*, *Shigella*, and *Brevibacterium*.

**Mildewstat** — **Miraquat 256** is effective against mold and mildew. It is applied to hard surfaces and general instruction is to repeat when mildew appears.

**Virucidal Performance** — **Miraquat 256** is effective against a wide range of viruses, including influenza, measles, and mumps. It is also virucidal in the presence of environmental surfaces.

**Sanitizing-Non-Foaming** — **Miraquat 256** is a non-foaming sanitizer. It is effective against a wide range of bacteria, including *Staphylococcus aureus*, *Escherichia coli*, and *Salmonella typhimurium*. It is also virucidal. It is used in the presence of environmental surfaces.

**Precautionary Statements**

**Hazards to Humans and domestic animals**

**DANGER**

Keep out of reach of children. Corrosive. Causes severe 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.

**STORAGE AND DISPOSAL**

- DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL
- OPEN DUMPING IS PROHIBITED
- DO NOT REUSE EMPTY CONTAINER

**PESTICIDE DISPOSAL**

PESTICIDE, SPRAY MIXTURE OR RINSATE THAT CANNOT BE USED OR CHEMICALLY REPROCESSED SHOULD BE DISPOSED OF IN A LANDFILL APPROVED FOR PESTICIDES OR BURIED IN A SAFE PLACE AWAY FROM WATER SUPPLIES

**CONTAINER DISPOSAL**

TRIPLE RINSE (OR EQUIVALENT) AND DISPOSE IN AN INCINERATOR OR LANDFILL APPROVED FOR PESTICIDE CONTAINERS. OR BURY IN A SAFE PLACE

**GENERAL**

CONSULT FEDERAL, STATE OR LOCAL DISPOSAL AUTHORITIES FOR APPROVED ALTERNATIVE PROCEDURES SUCH AS LIMITED OPEN BURNING

ACCEPTED  
 5579-3

Dimethyl Benzyl Ammonium Chloride

5.000%

**Inert Ingredients**

87.500%

100.000%

KEEP OUT OF REACH OF CHILDREN

**DANGER**

**Statement of Practical Treatment**

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, as well as oxygen and measures to support breathing manually or mechanically may be needed. If persistent, convulsions may be controlled by the cautious intravenous injection of a short-acting barbiturate drug.

**SEE LEFT PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS**

EPA Registration No.

5579-XX

EPA Establishment No.

5579-ND-1

Net Contents

Manufactured By:

Miracle Chemicals Inc. 902 Univ. Ave. Grand Forks ND 58201

LE MAINTENAN

solution becomes visibly dirty

**Disinfection** — to disinfect hard, non-porous surfaces, add 1/2 oz. per gallon of water. Treated surfaces must remain wet for 10 minutes. At this use-level, Miraquat 256 is also virucidal and fungicidal.

**Sanitizing** — To sanitize porous or non-porous, non-food contact surfaces, add 1/4 oz. per gallon of water

1/2 oz. per gallon use-level. The broad spectrum activity of Miraquat 256 has been evaluated in the presence of 5% serum and found to be effective against the following by the AOAC Use-Dilution test

- Pseudomonas aeruginosa
- Staphylococcus aureus
- Salmonella choleraesuis
- Escherichia coli
- Klebsiella pneumoniae
- Enterobacter aerogenes
- Salmonella schottmuelieri
- Streptococcus faecalis
- Shigella dysenteriae
- Brevibacterium ammoniagenes

**AOAC Fungicidal Test**

Miraquat 256 is effective against Trichophyton mentagrophytes (the athlete's foot fungus) when used on surfaces in areas such as locker rooms, shower and bath areas, exercise areas, dressing rooms, etc.

**Mildewstatic Performance.** At 1/2 oz/gallon,

Miraquat 256 will effectively inhibit the growth of mold and mildew and the odors caused by them when applied to hard non-porous surfaces (as indicated in general instructions above). Allow to dry on surface and repeat when mildew growth returns.

**Virucidal Performance**

At 1/2 oz per gallon use-level Miraquat 256 was evaluated in the presence of 10% serum and found to be effective against the following viruses: Herpes Simplex (a member of the virus family that causes infectious mononucleosis), Vaccinia (representative of the pox viruses) and Influenza A<sub>1</sub> (the Hong Kong flu virus) on inanimate environmental surfaces.

**Sanitizing-Non-Food Contact Surfaces (such as floors, walls, tables, etc.)** At 1/2 oz per 2 gallon use-level 30 second contact time Miraquat 256 is an effective sanitizing agent in waters of up to 600 ppm hardness against Staphylococcus aureus and Klebsiella pneumoniae in the presence of 5% serum on porous and non-porous environmental surfaces.

BEST DOCUMENT AVAILABLE

U.S. ENVIRONMENTAL PROTECTION AGENCY OFFICE OF PESTICIDES PROGRAMS REGISTRATION DIVISION (411-567) WASHINGTON, D.C. 20460	EPA REGISTRATION NO.	DATE OF ISSUANCE
	TERM OF ISSUANCE	09 AUG 1984
NOTICE OF PESTICIDE: <input type="checkbox"/> REGISTRATION <input type="checkbox"/> REREGISTRATION (Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended)	NAME OF PESTICIDE PRODUCT	
NAME AND ADDRESS OF REGISTRANT (Include ZIP code)		
BEST DOCUMENT AVAILABLE		
NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.		
On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.		
A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.		
Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.		
<input checked="" type="checkbox"/> ATTACHMENT IS APPLICABLE		
SIGNATURE OF APPROVING OFFICIAL		DATE

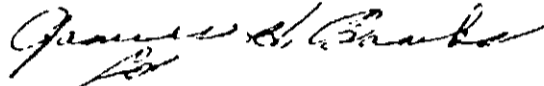
3. The revised Confidential Statement of Formula submitted July 23, 1984 is acceptable and has been placed in your file.

4. The confirmatory data submitted June 15, 1983, are acceptable and have been assigned the Accession Number 250633.

5. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 Enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.



John H. Lee  
Product Manager (31)  
Disinfectants Branch  
Registration Division (TS-767C)

RD-DIS:Lee:DCR-44682:WANG-0013K:mar:Raven:479-2013:8/6/84:Del.8/21/84

BEST DOCUMENT AVAILABLE