

PA131

52252-4

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MINNCARE™ COLD STERILANT

For use in RO membranes and their associated distribution systems.
Also for the sterilization and disinfection of hard surfaces.

For use in the following locations;

- | | |
|-------------------------------|-----------------------------|
| Industrial Laboratory | Universities Laboratory |
| Health Care Environments | Semi Conductor Manufactures |
| Pharmaceutical Manufactures | Cosmetic Manufactures |
| Medical Products Manufactures | Bio Tech Companies |
| Electrical Utility Companies | |

Read Minncare™ label and package insert and application notes before using this product.

Active Ingredients

Hydrogen Peroxide	20.0%
Peroxyacetic Acid	4.0%
Inert Ingredients	<u>76.0%</u>
Total	100.0%

ACCREDITED
MAR 28 1989
This product has been
 tested and found to
 conform to the
 requirements for this position
 registered under
 EPA Reg. No. 52252-4

Net Contents: 1 U.S. quart (0.946 liters)

KEEP OUT OF REACH OF CHILDREN

DANGER

See
~~Refer to~~ side panel for additional precautionary statements.

EPA Reg. No.: 52252-4

EPA Est. No.: 52252-MN-01

Lot No. _____

Expiration Date: _____

(Minntech logo) **MINNTECH CORPORATION** Minntech Corporation
 14905 28th Avenue North
 Minneapolis, Minnesota 55447 U.S.A.
 Telephone (612) 553-3300
 (800) 328-3345
 Telex 29-0825 RSIMPLS PLOH
 Fax (612) 553-3387

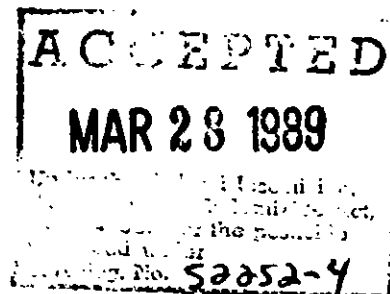
2 of 19

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PRECAUTIONARY STATEMENTS

Hazard to Humans and Domestic Animals.

Corrosive. Can cause eye damage and skin irritation. Do not get in eyes, on skin or on clothing. Wear safety glasses and rubber gloves when handling. Wash thoroughly after handling. Harmful if swallowed.



Statement of Practical Treatment

In case of contact with eyes, immediately flush with large amounts of water for at least fifteen (15) minutes. For eyes, get prompt medical attention.

If swallowed, drink large amounts of water immediately to dilute. Do not attempt to induce vomiting. Call physician immediately.

Note to Physician: Probable mucosal damage may contraindicate gastric lavage.

For chemical emergency, spill, leak, fire, exposure or accident, call CHEMTREC, day or night, 800-424-9300. In District of Columbia and outside continental U.S.A., call 202-483-7616.

Directions for Use

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

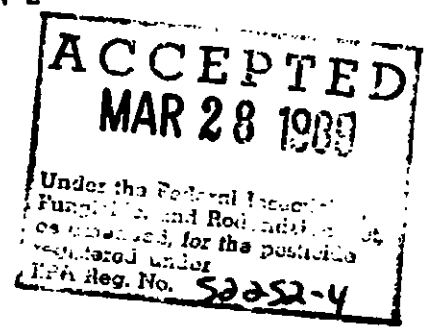
Refer to package insert for complete directions for use.

3714

STORAGE AND DISPOSAL

Storage

1. Store in shipping carton.
2. Do not expose to direct sunlight.
3. Maintain temperature below 75°F (24°C).
4. Avoid contact with combustible materials.
5. Avoid contamination from any source, including metals, dust, etc. Such contamination may cause rapid decomposition, generation of large quantities of oxygen gas and high pressures.
6. Store in original closed container. NEVER TAMPER WITH VENT.



Pesticide Disposal

Do not contaminate water, food or feed by storage or disposal.

Wastes resulting from the use of this product may be disposed of on-site by diluting in a sanitary sewer or at an approved disposal facility.

Container Disposal

Triple rinse empty container with water. Then offer for recycling or reconditioning; or puncture and dispose of in a sanitary landfill; incinerate; or if allowed by state and local authorities dispose of by burning. If burned, stay clear of the smoke.

4/8/14

Appendix II

Package Insert
To be included with product

Faint, illegible text or markings in the bottom right corner, possibly bleed-through from the reverse side of the page.

5-814

MINNCARE™ COLD STERILANT

Package Insert

For use in RO membranes and their associated distribution systems.
Also for the sterilization and disinfection of hard surfaces.

For use in the following locations;

- | | |
|-------------------------------|-----------------------------|
| Industrial Laboratory | Universities Laboratory |
| Health Care Environments | Semi Conductor Manufactures |
| Pharmaceutical Manufactures | Cosmetic Manufactures |
| Medical Products Manufactures | Bio Tech Companies |
| Electrical Utility Companies | |

Read Minncare™ label and application notes before using this product.

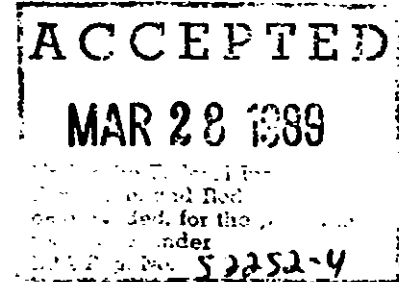
This product must be diluted with Purified Water prior to use.

Active Ingredients

Hydrogen Peroxide	20.0%
Peroxyacetic Acid	4.0%

Inert Ingredients 76.0%

Total 100.0%



Net Contents: 1 U.S. quart (0.946 liters)

KEEP OUT OF REACH OF CHILDREN

DANGER

See side panel for additional precautionary statements.

EPA Reg. No.: 52252-4

EPA Est. No.: 52252-MN-01

(Minntech logo)	MINNTECH CORPORATION	Minntech Corporation 14905 28th Avenue North Minneapolis, Minnesota 55447 U.S.A. Telephone (612) 553-3300 (800) 328-3345 Telex 29-0825 RSIMPLS PLOH Fax (612) 553-3387
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6719

PRODUCT EFFICACY

- Sterilant 100X dilution 11 hours 20°C
- Sporicidal 100X dilution 11 hours 20°C
- Bactericidal 100X dilution 11 hours 20°C
- Virucidal 100X dilution 11 hours 20°C
 - Hepatitis B 100X dilution 11 hours 20°C
 - HIV-1 * 100X dilution 11 hours 20°C
- Fungicidal 100X dilution 11 hours 20°C
- Effective against non-tuberculous mycobacterium (chelonae abscessus) 100X dilution, 10 min., 20°C
- Cleaner/Sanitizer (non-food contact surfaces) 32X dilution, 10 min., 20°C
- Hospital Disinfectant - Pseudomonacidal 100X dilution, 10 min., 20°C
- Broad Spectrum Disinfectant 100X dilution, 10 min., 20°C
- Germicidal Spray Disinfectant 100X dilution, 10 min., 20°C
- RO Membrane Disinfectant 100X dilution, 10 min., 20°C

ACCEPTED
MAR 28 1999
 Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 52252-4

* **KILLS HIV ON PRE-CLEANED ENVIRONMENTAL SURFACES/OBJECTS PREVIOUSLY SOILED WITH BLOOD/BLOODY FLUIDS** in health care settings 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 for transmission of human immunodeficiency virus Type 1 (HIV-1) (associated with AIDS).

SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATION AGAINST HIV OF SURFACES/OBJECTS SOILED WITH BLOOD/BODY FLUIDS:

PERSUNAL PROTECTION: Specific barrier protection items to be used when handling items soiled with blood or body fluids are disposable latex gloves, gowns, masks, or eye coverings.

CLEANING PROCEDURE: Blood and other body fluids must be thoroughly cleaned from surfaces and objects before application of the ~~sterilant~~ Sterilant

DISPOSAL OF INFECTIOUS MATERIALS: Blood and other body fluids should be autoclaved and disposed of according to federal, state and local regulations for infectious waste disposal.

CONTACT TIME: Leave surfaces wet for 11 hours.

7214

PRECAUTIONARY STATEMENTS

Hazard to Humans and Domestic Animals.

Corrosive. Can cause eye damage and skin irritation. Do not get in eyes, on skin or on clothing. Wear safety glasses and rubber gloves when handling. Wash thoroughly after handling. Harmful if swallowed.

Statement of Practical Treatment

In case of contact with eyes, immediately flush with large amounts of water for at least fifteen (15) minutes. For eyes, get prompt medical attention.

If swallowed, drink large amounts of water immediately to dilute. Do not attempt to induce vomiting. Call physician immediately.

Note to Physician: Probably mucosal damage may contraindicate gastric lavage.

For chemical emergency, spill, leak, fire, exposure or accident, call CHEMTREC, day or night, 800-424-9300. In District of Columbia and side continental U.S.A., call 202-483-7616.

ACCEPTED
MAR 28 1988
U.S. Dept. of the Interior, Bureau of Reclamation, and Federal Emergency Management Agency, for the purchase of... under... No. 50252-4

DIRECTIONS FOR USE

- 1) It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
- 2) DO NOT USE AFTER EXPIRATION DATE.
- 3) Do not allow Minncare™ to mix with alkaline substances such as bleach (Sodium hypochlorite).
- 4) If spilled, flush away with large quantities of water.
- 5) Use purified water when diluting Minncare™.
- 6) Once diluted, solution must be used within seven (7) days.
- 7) Minncare™ is a single-use product not intended for reuse.

8-214

Directions for Sterilization

1. Remove any obvious debris or organic material from the surface to be sterilized. This can often be accomplished by rinsing with purified water mechanical action or by detergent cleaning followed by a water rinse.
2. Dilute Minncare™ 100X (1 part Minncare™ plus 99 parts purified water). Once diluted, the solution must be used within 7 days.
3. Immerse the item to be sterilized in a sufficient volume of diluted Minncare™ Cold Sterilant to cover the item and fill all passages requiring sterilization. Hold in the sterilizing solution for a minimum of 11 hours at 20°C (68°F).
4. Remove items after 11 hours and rinse with sterile water until effluent testing shows acceptable levels when tested with Minncare™ Residual Test Strips.

Directions for Hospital Disinfection

1. Remove any obvious debris or organic material from the surface to be disinfected. This can often be accomplished by rinsing with purified water, mechanical action or by detergent cleaning followed by a water rinse.
2. Dilute Minncare™ 100X (1 part Minncare™ plus 99 parts water). Once diluted, the solution must be used within 7 days.
3. Immerse the item to be disinfected in sufficient volume of diluted Minncare™ Cold Sterilant to cover the item and fill all passages requiring disinfecting. Hold in the disinfecting solution for a minimum of 10 minutes.
4. Remove items after 10 minutes and rinse with sterile water until effluent shows acceptable levels when tested with Minncare™ Residual Test Strips.

ACCEPTED
 MAR 28 1989
 Under the Federal Insecticide
 Fungicide, and Rodenticide Act
 as amended, for the pesticide
 registered under
 EPA Reg. No. 5222-4

Direction for Disinfection of RO Membranes

READ REVERSE OSMOSIS MEMBRANE DISINFECTION APPLICATION NOTE prior to use.

Minncare™ Cold Sterilant is recommended for the decontamination of reverse osmosis membranes and their associated distribution systems. Due to the configuration of various water systems, insufficient contact with Minncare™ Cold Sterilant may result in the lack of total elimination of all vegetative microorganisms. The possibility of recontamination by the incoming water supply may also exist. Minncare™ should be used in a disinfection program which includes bacteriological monitoring of the entire RO water system. Read Minncare™ RO Membrane Application Note prior to use in RO water systems.

The RO manufacturer should be consulted prior to use of Minncare™ Cold Sterilant to determine compatibility of the specific membranes.

MINNCARE™

Directions for Use as a Germicidal Spray

1. Dilute 100X with purified water. Note: Once diluted the solution must be used within 7 days. Discard any unused diluted solution.
2. Spray onto surface using a plastic spray bottle.
3. Allow to remain on surface for 10 minutes.
4. Let air dry or rinse with purified water, drain off excess water if possible and allow to dry.

Directions for Use as a Cleaner/Sanitizer (Nonfood Contact Surfaces)

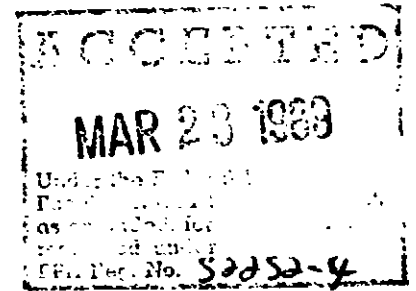
1. Using water or mechanical action remove heavy soil or gross filth from hard surfaces such as formica, stainless steel or plastic.
2. Dilute 32X with purified water. Note: Once diluted, the solution must be used within 7 days. Discard any unused diluted solution.
3. Apply to surface or immerse items to be sanitized in the solution. Allow 10 minutes of contact time. Rinse with purified water, drain excess if possible and allow to air dry.
4. Product may be applied by cloth, mop, or sponge.

ACCEPTED
MAR 28 1989
Under the Feds of Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the purpose of
registered under
EPA Reg. No. 52252-4

USES

Primarily intended for sterilization or disinfection of:

- Reverse Osmosis Membranes and Associated Distribution Systems
- Medical Equipment
- Dental Equipment
- Surgical Instruments
- Dialysis Equipment
- Plastic Items
- Stainless Steel Objects
- Hard Surfaces
- Floors
- Walls
- Bathroom fixtures
- Vinyl surfaces
- Formica surfaces
- Glass

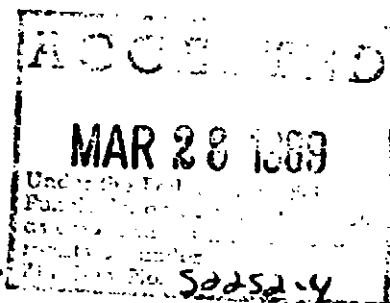


11/14

STORAGE AND DISPOSAL

Storage

1. Store in shipping carton.
2. Do not expose to direct sunlight.
3. Maintain temperature below 75°F (24°C).
4. Avoid contact with combustible materials.
5. Avoid contamination from any source, including metals, dust, etc. Such contamination may cause rapid decomposition, generation of large quantities of oxygen gas and high pressures.
6. Store in original closed container. NEVER TAMPER WITH VENT.



Pesticide Disposal

Do not contaminate water, food or feed by storage or disposal.

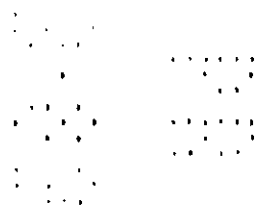
Wastes resulting from the use of this product may be disposed of on-site by diluting in a sanitary sewer or at an approved disposal facility.

Container Disposal

Triple rinse empty container with water. Then offer for recycling or reconditioning; or puncture and dispose of in a sanitary landfill; incinerate; or if allowed by state and local authorities dispose of by burning. If burned, stay clear of the smoke.

Appendix III

Application Note for Reverse Osmosis Membrane Disinfection



13.8.14

EPA Reg. No.: 52252-4

APPLICATION NOTE

For Reverse Osmosis Membrane Disinfection

MinnCare™ Disinfecting Solution may be used for reverse osmosis (RO) systems which are compatible with diluted hydrogen peroxide solutions. The Minncare™ Disinfecting Solution has a shelf life of one year. Minncare™ should not be stored at it's 1% use dilution since this will compromise its effective concentration.

The RO manufacturer should be consulted prior to use of Minncare™ Disinfecting Solution to determine the temperature and pH range acceptable for the particular membranes. At a 100X dilution (1% concentration), the pH range for Minncare™ is 3.0-3.5.

RO water systems vary in design according to the particular needs of the user. Because of the variation in materials of construction at different facilities, some systems may have components of pumps, gaskets, etc. that are not compatible with long term exposure to Minncare™. Minncare™ is to a degree corrosive to copper, brass, iron and certain other metals. Minncare™ has also exhibited a decreased resistance to latex and Buna-N with extended exposure. Minncare™ disinfecting Solution has been found compatible with typical system materials such as stainless steel. It is also compatible with polypropylene, high density polyethylene, polysulfone, teflon polycarbonate, neoprene, ABS, nylon, acrylic silicone, plexiglass, ethylene propylene, VITON, and FLUOREL.

Because of the individuality of each RO water system in design and construction, as well as the quality of raw feed water, all RO water systems do not contain the same components. Dependent upon your particular system, all or portions of the following procedure may be used for disinfection.

1. Biological or organic fouling of the membrane or other parts of the system should be removed with an appropriate cleaner. It is important to follow the membrane manufacturer's recommended cleaning procedure. After cleaning, flush the system with RO permeate.
2. Mineral deposits should be removed with an acidic cleaner prior to disinfection of the membrane. Again follow the membrane manufacturer's recommended cleaning procedure. Then flush the unit with RO permeate. The presence of iron or other transition metals in conjunction with the hydrogen peroxide in Minncare™ could cause membrane degradation.
3. Prepare a 1% solution (1 part Minncare™ to 99 parts water) of Minncare™ by adding the Minncare™ solution to permeate water. Fill the entire water circuit to be disinfected with a 1% solution and allow the diluted solution to reach a minimum temperature of 20°C (68°F). Do not exceed the membrane manufacturer's recommended temperature.

ACCEPTED
MAR 28 1989
 Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 52252-4

4. Recirculate the 1% Minncare™ solution until the entire system is filled.
5. Allow the elements to soak in the 1% Minncare™ solution for a minimum of 10 minutes at 20°C (68°F).
6. Rinse the RO system and check for residuals by following the directions on the Minncare™ Residual Test Strips label. The residual test strip should indicate less than 2 ppm. Rinse times will vary depending on the size of the RO system. Residual disinfectant that may enter the system because of chemical rebound can be eliminated by diverting product water to drain for a short period of time.
7. It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
8. Refer to package insert for complete precautionary statements and Directions for Use.

ACCEPTED
MAR 28 1980
Under the Food and Drug Administration
as amended, for the purpose of
regulation of the Food and Drug
Administration 52052-4

MINNCARE™ COLD STERILANT

For use in RO membranes and their associated distribution systems.
Also for the sterilization and disinfection of hard surfaces.

For use in the following locations;

- | | |
|-------------------------------|-----------------------------|
| Industrial Laboratory | Universities Laboratory |
| Health Care Environments | Semi Conductor Manufactures |
| Pharmaceutical Manufactures | Cosmetic Manufactures |
| Medical Products Manufactures | Bio Tech Companies |
| Electrical Utility Companies | |

Read Minncare™ label and package insert and application notes before using this product.

Active Ingredients

Hydrogen Peroxide	20.0%
Peroxyacetic Acid	4.0%

Inert Ingredients 76.0%

Total 100.0%

MAR 28 1989

52252-4

Net Contents: 1 U.S. quart (0.946 liters)

KEEP OUT OF REACH OF CHILDREN

DANGER

See
~~Refer to~~ side panel for additional precautionary statements.

EPA Reg. No.: 52252-4

EPA Est. No.: 52252-MN-01

Lot No. _____

Expiration Date: _____

(Minntech logo) MINNTECH CORPORATION
 Minntech Corporation
 14905 28th Avenue North
 Minneapolis, Minnesota 55447 U.S.A.
 Telephone (612) 553-3300
 (800) 328-3345
 Telex 29-0825 RSIMPLS PLOH
 Fax (612) 553-3387

PRECAUTIONARY STATEMENTS

Hazard to Humans and Domestic Animals.

Corrosive. Can cause eye damage and skin irritation. Do not get in eyes, on skin or on clothing. Wear safety glasses and rubber gloves when handling. Wash thoroughly after handling. Harmful if swallowed.

MAR 2 1968

Statement of Practical Treatment

5002-4

In case of contact with eyes, immediately flush with large amounts of water for at least fifteen (15) minutes. For eyes, get prompt medical attention.

If swallowed, drink large amounts of water immediately to dilute. Do not attempt to induce vomiting. Call physician immediately.

Note to Physician: Probable mucosal damage may contraindicate gastric lavage.

For chemical emergency, spill, leak, fire, exposure or accident, call CHEMTREC, day or night, 800-424-9300. In District of Columbia and outside continental U.S.A., call 202-483-7616.

Directions for Use

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

Refer to package insert for complete directions for use.

((

STORAGE AND DISPOSAL

Storage

1. Store in shipping carton.
2. Do not expose to direct sunlight.
3. Maintain temperature below 75°F (24°C).
4. Avoid contact with combustible materials.
5. Avoid contamination from any source, including metals, dust, etc. Such contamination may cause rapid decomposition, generation of large quantities of oxygen gas and high pressures.
6. Store in original closed container. NEVER TAMPER WITH VENT.

ACCEPTED
MAR 20 1981

SHAWLEY

Pesticide Disposal

Do not contaminate water, food or feed by storage or disposal.

Wastes resulting from the use of this product may be disposed of on-site by diluting in a sanitary sewer or at an approved disposal facility.

Container Disposal

Triple rinse empty container with water. Then offer for recycling or reconditioning; or puncture and dispose of in a sanitary landfill; incinerate; or if allowed by state and local authorities dispose of by burning. If burned, stay clear of the smoke.

Appendix II
Package Insert
To be included with product



MINNCARE™ COLD STERILANT

Package Insert

For use in RO membranes and their associated distribution systems.
Also for the sterilization and disinfection of hard surfaces.

For use in the following locations;

Industrial Laboratory	Universities Laboratory
Health Care Environments	Semi Conductor Manufactures
Pharmaceutical Manufactures	Cosmetic Manufactures
Medical Products Manufactures	Bio Tech Companies
Electrical Utility Companies	

Read Minncare™ label and application notes before using this product.

This product must be diluted with Purified Water prior to use.

Active Ingredients

Hydrogen Peroxide	20.0%
Peroxyacetic Acid	4.0%

Inert Ingredients 76.0%

Total 100.0%

ACCEPTED

MAR 28 1989

52252-4

Net Contents: 1 U.S. quart (0.946 liters)

KEEP OUT OF REACH OF CHILDREN

DANGER

See side panel for additional precautionary statements.

EPA Reg. No.: 52252-4

EPA Est. No.: 52252-MN-01

(Minntech logo) MINNTECH CORPORATION
Minntech Corporation
14905 28th Avenue North
Minneapolis, Minnesota 55447 U.S.A.
Telephone (612) 553-3300
(800) 328-3345
Telex 29-0825 RSIMPLS PLOH
Fax (612) 553-3387

(PRODUCT EFFICACY (

- ° Sterilant 100X dilution 11 hours 20°C
- ° Sporicidal 100X dilution 11 hours 20°C
- ° Bactericidal 100X dilution 11 hours 20°C
- ° Virucidal 100X dilution 11 hours 20°C
 - Hepatitis B 100X dilution 11 hours 20°C
 - HIV-1 * 100X dilution 11 hours 20°C
- ° Fungicidal 100X dilution 11 hours 20°C
- ° Effective against non-tuberculous mycobacterium (cheloniae abscessus) 100X dilution, 10 min., 20°C
- ° Cleaner/Sanitizer 32X dilution, 10 min., 20°C
(non-food contact surfaces)
- ° Hospital Disinfectant 100X dilution, 10 min., 20°C
- Pseudomonacidal
- ° Broad Spectrum Disinfectant 100X dilution, 10 min., 20°C
- ° Germicidal Spray Disinfectant 100X dilution, 10 min., 20°C
- ° RO Membrane Disinfectant 100% dilution, 10 min., 20°C

ACCEPTED
MAR 28 1990
5252-4

* KILLS HIV ON PRE-CLEANED ENVIRONMENTAL SURFACES/OBJECTS PREVIOUSLY SOILED WITH BLOOD/BLOODY FLUIDS in health care settings 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 for transmission of human immunodeficiency virus Type 1 (HIV-1) (associated with AIDS).

SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATION AGAINST HIV OF SURFACES/OBJECTS SOILED WITH BLOOD/BODY FLUIDS:

PERSONAL PROTECTION: Specific barrier protection items to be used when handling items soiled with blood or body fluids are disposable latex gloves, gowns, masks, or eye coverings.

CLEANING PROCEDURE: Blood and other body fluids must be thoroughly cleaned from surfaces and objects before application of the ~~sterilant~~ Sterilant

DISPOSAL OF INFECTIOUS MATERIALS: Blood and other body fluids should be autoclaved and disposed of according to federal, state and local regulations for infectious waste disposal.

CONTACT TIME: Leave surfaces wet for 11 hours.

((

PRECAUTIONARY STATEMENTS

Hazard to Humans and Domestic Animals.

Corrosive. Can cause eye damage and skin irritation. Do not get in eyes, on skin or on clothing. Wear safety glasses and rubber gloves when handling. Wash thoroughly after handling. Harmful if swallowed.

Statement of Practical Treatment

In case of contact with eyes, immediately flush with large amounts of water for at least fifteen (15) minutes. For eyes, get prompt medical attention.

If swallowed, drink large amounts of water immediately to dilute. Do not attempt to induce vomiting. Call physician immediately.

Note to Physician: Probably mucosal damage may contraindicate gastric lavage.

For chemical emergency, spill, leak, fire, exposure or accident, call CHEMTREC, day or night, 800-424-9300. In District of Columbia and outside continental U.S.A., call 202-483-7616.

AC-101113

MAR 20 1980

DIRECTIONS FOR USE

- 1) It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
- 2) DO NOT USE AFTER EXPIRATION DATE.
- 3) Do not allow Minncare™ to mix with alkaline substances such as bleach (Sodium hypochlorite).
- 4) If spilled, flush away with large quantities of water.
- 5) Use purified water when diluting Minncare™.
- 6) Once diluted, solution must be used within seven (7) days.
- 7) Minncare™ is a single-use product not intended for reuse.

50252-4

Directions for Sterilization

1. Remove any obvious debris or organic material from the surface to be sterilized. This can often be accomplished by rinsing with purified water mechanical action or by detergent cleaning followed by a water rinse.
2. Dilute Minncare™ 100X (1 part Minncare™ plus 99 parts purified water). Once diluted, the solution must be used within 7 days.
3. Immerse the item to be sterilized in a sufficient volume of diluted Minncare™ Cold Sterilant to cover the item and fill all passages requiring sterilization. Hold in the sterilizing solution for a minimum of 11 hours at 20°C (68°F).
4. Remove items after 11 hours and rinse with sterile water until effluent testing shows acceptable levels when tested with Minncare™ Residual Test Strips.

Directions for Hospital Disinfection

1. Remove any obvious debris or organic material from the surface to be disinfected. This can often be accomplished by rinsing with purified water, mechanical action or by detergent cleaning followed by a water rinse.
2. Dilute Minncare™ 100X (1 part Minncare™ plus 99 parts water). Once diluted, the solution must be used within 7 days.
3. Immerse the item to be disinfected in sufficient volume of diluted Minncare™ Cold Sterilant to cover the item and fill all passages requiring disinfecting. Hold in the disinfecting solution for a minimum of 10 minutes.
4. Remove items after 10 minutes and rinse with sterile water until effluent shows acceptable levels when tested with Minncare™ Residual Test Strips.

RECEIVED
MAR 20 1989
5022-4

Direction for Disinfection of RO Membranes

READ REVERSE OSMOSIS MEMBRANE DISINFECTION APPLICATION NOTE prior to use.

Minncare™ Cold Sterilant is recommended for the decontamination of reverse osmosis membranes and their associated distribution systems. Due to the configuration of various water systems, insufficient contact with Minncare™ Cold Sterilant may result in the lack of total elimination of all vegetative microorganisms. The possibility of recontamination by the incoming water supply may also exist. Minncare™ should be used in a disinfection program which includes bacteriological monitoring of the entire RO water system. Read Minncare™ RO Membrane Application Note prior to use in RO water systems.

The RO manufacturer should be consulted prior to use of Minncare™ Cold Sterilant to determine compatibility of the specific membranes.

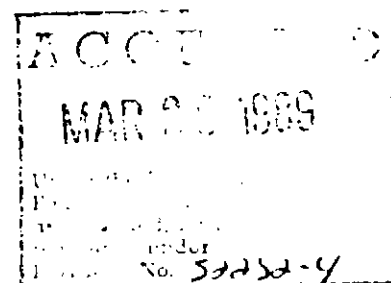
MINNCARE™

Directions for Use as a Germicidal Spray

1. Dilute 100X with purified water. Note: Once diluted the solution must be used within 7 days. Discard any unused diluted solution.
2. Spray onto surface using a plastic spray bottle.
3. Allow to remain on surface for 10 minutes.
4. Let air dry or rinse with purified water, drain off excess water if possible and allow to dry.

Directions for Use as a Cleaner/Sanitizer (Nonfood Contact Surfaces)

1. Using water or mechanical action remove heavy soil or gross filth from hard surfaces such as formica, stainless steel or plastic.
2. Dilute 32X with purified water. Note: Once diluted, the solution must be used within 7 days. Discard any unused diluted solution.
3. Apply to surface or immerse items to be sanitized in the solution. Allow 10 minutes of contact time. Rinse with purified water, drain excess if possible and allow to air dry.
4. Product may be applied by cloth, mop, or sponge.



USES

Primarily intended for sterilization or disinfection of:

Reverse Osmosis Membranes and Associated Distribution Systems
Medical Equipment
Dental Equipment
Surgical Instruments
Dialysis Equipment
Plastic Items
Stainless Steel Objects
Hard Surfaces
Floors
Walls
Bathroom fixtures
Vinyl surfaces
Formica surfaces
Glass

MAR 2 1988
50252-4

STORAGE AND DISPOSAL

Storage

1. Store in shipping carton.
2. Do not expose to direct sunlight.
3. Maintain temperature below 75°F (24°C).
4. Avoid contact with combustible materials.
5. Avoid contamination from any source, including metals, dust, etc. Such contamination may cause rapid decomposition, generation of large quantities of oxygen gas and high pressures.
6. Store in original closed container. NEVER TAMPER WITH VENT.

Pesticide Disposal

Do not contaminate water, food or feed by storage or disposal.

Wastes resulting from the use of this product may be disposed of on-site by diluting in a sanitary sewer or at an approved disposal facility.

Container Disposal

Triple rinse empty container with water. Then offer for recycling or reconditioning; or puncture and dispose of in a sanitary landfill; incinerate; or if allowed by state and local authorities dispose of by burning. If burned, stay clear of the smoke.

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Appendix III

Application Note for Reverse Osmosis Membrane Disinfection



APPLICATION NOTE

For Reverse Osmosis Membrane Disinfection

Minnicare™ Disinfecting Solution may be used for reverse osmosis (RO) systems which are compatible with diluted hydrogen peroxide solutions. The Minncare™ Disinfecting Solution has a shelf life of one year. Minncare™ should not be stored at it's 1% use dilution since this will compromise its effective concentration.

The RO manufacturer should be consulted prior to use of Minncare™ Disinfecting Solution to determine the temperature and pH range acceptable for the particular membranes. At a 100X dilution (1% concentration), the pH range for Minncare™ is 3.0-3.5.

RO water systems vary in design according to the particular needs of the user. Because of the variation in materials of construction at different facilities, some systems may have components of pumps, gaskets, etc. that are not compatible with long term exposure to Minncare™. Minncare™ is to a degree corrosive to copper, brass, iron and certain other metals. Minncare™ has also exhibited a decreased resistance to latex and Buna-N with extended exposure. Minncare™ disinfecting Solution has been found compatible with typical system materials such as stainless steel. It is also compatible with polypropylene, high density polyethylene, polysulfone, teflon polycarbonate, neoprene, ABS, nylon, acrylic silicone, plexiglass, ethylene propylene, VITON, and FLUOREL.

Because of the individuality of each RO water system in design and construction, as well as the quality of raw feed water, all RO water systems do not contain the same components. Dependent upon your particular system, all or portions of the following procedure may be used for disinfection.

1. Biological or organic fouling of the membrane or other parts of the system should be removed with an appropriate cleaner. It is important to follow the membrane manufacturer's recommended cleaning procedure. After cleaning, flush the system with RO permeate.
2. Mineral deposits should be removed with an acidic cleaner prior to disinfection of the membrane. Again follow the membrane manufacturer's recommended cleaning procedure. Then flush the unit with RO permeate. The presence of iron or other transition metals in conjunction with the hydrogen peroxide in Minncare™ could cause membrane degradation.
3. Prepare a 1% solution (1 part Minncare™ to 99 parts water) of Minncare™ by adding the Minncare™ solution to permeate water. Fill the entire water circuit to be disinfected with a 1% solution and allow the diluted solution to reach a minimum temperature of 20°C (68°F). Do not exceed the membrane manufacturer's recommended temperature.

4. Recirculate the 1% Minncare™ solution until the entire system is filled.
5. Allow the elements to soak in the 1% Minncare™ solution for a minimum of 10 minutes at 20°C (68°F).
6. Rinse the RO system and check for residuals by following the directions on the Minncare™ Residual Test Strips label. The residual test strip should indicate less than 2 ppm. Rinse times will vary depending on the size of the RO system. Residual disinfectant that may enter the system because of chemical rebound can be eliminated by diverting product water to drain for a short period of time.
7. It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
8. Refer to package insert for complete precautionary statements and Directions for Use.

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