

## Compatibility of Minncare® Cold Sterilant and System Materials

Minncare Cold Sterilant is used in a variety of system and surface disinfection applications in several industries. The materials in systems, both water treatment systems and process systems, are normally exposed to solution of 1% Minncare and 99% purified water. Minncare is registered for use as a surface disinfectant for non-porous materials including plastics, stainless steel and glass.

On the back page is a table showing the general compatibility of selected materials and Minncare Cold Sterilant in concentrated or dilute form. The materials chosen are commonly found in water treatment systems, liquid processing systems or processing areas where surface disinfection is required.



### Test Conditions

#### Materials

Samples of uniform size, cleaned, dried, weighed and measured before immersion is one of three solutions

#### Chemical Solution Components

Minncare Cold Sterilant (Peracetic Acid/Hydrogen Peroxide) and Purified Water

#### Dilutions Tested

Minncare Concentrate (24% Hydrogen peroxide, 4.5% Peroxyacetic Acid), a 3% Minncare Solution (0.72% Hydrogen Peroxide and 0.135% Peroxyacetic Acid), and a 1% Minncare Solution (0.24% Hydrogen Peroxide and 0.045% Peroxyacetic Acid)

#### Exposure Time

2 weeks at the designated dilution (Each solution was changed every Monday, Wednesday and Friday over a 2 week period. At each solution change, each material was rinsed with deionized water and observed for obvious effects on the material like swelling, melting, bleaching, disintegration, warping or color change.)

#### Exposure Temperature

Room Temperature

#### Control

All materials soaked in purified water for the same time as exposed materials

### Test Documentation

These tests were conducted according to ASTM Standards. Detailed test results are available on request from Mar Cor Purification.  
(continued on back)

## Test Results

A code is assigned to each material that indicates its compatibility with Minncare Cold Sterilant. The codes are:

“A” - Compatible, no significant effected noted

“B” - Material exhibited some minor reaction during the 30 cycles, including:

- A low corrosion rate or discoloration for metals
- Discoloration or slight swelling for polymers

“C” - Significant reaction, but not a failure of the material

- A higher corrosion rate or significant visual change in metals
- Swelling, significant weight change or surface property changes in polymers

“NR” - Not recommended for exposure to Minncare Cold Sterilant due to material failure

- Very high corrosion rates for metals
- Disintegration or major property changes in polymers

Material	Effect of		
	Minncare Concentrate	3% Minncare Solution	1% Minncare Solution
<b>Non-Porous Materials</b>			
ABS	B	A	A
Acrylic	A	A	A
C-PVC	A	A	A
Polyoxymethylene	A	A	A
Polyphenylene Oxide/Polystyrene	A	A	A
Polyamide	C	B	A
Plexiglass	A	A	A
Polycarbonate	A	A	A
Polyethylene	A	A	A
High-Density Polyethylene	A	A	A
UHMW Polyethylene	A	A	A
Polypropylene	A	A	A
Polysulfone	A	A	A
Polyurethane	NR	B	A
PVC (rigid)	A	A	A
Polyvinylidene Fluoride	A	A	A
Polytetrafluoroethylene	A	A	A
Anodized Aluminum	B	B	B
Copper	NR	NR	NR
Brass	NR	NR	NR
Stainless Steel	A	A	A
<b>Elastomers</b>			
Buna-N	NR	B	B
EPDM	NR	A	A
Ethylene Propylene (EPR)	B	A	A
Latex	NR	B	B
2-Chlorobutadiene	NR	NR	NR
Silicone	A	A	A
Vinylidene Fluoride	B	B	A
Epoxy Adhesive	NR	B	A
Epoxy Paint	NR	NR	NR

Minncare® is a registered trademark of Minntech Corporation, a Cantel Medical Company



Mar Cor Purification  
4450 Township Line Road  
Skipack, PA 19474-1429  
Tel: (484) 991-0220  
Toll Free: (800) 346-0365  
Fax: (484) 991-0230

Mar Cor Purification  
14550 28th Avenue North  
Plymouth, MN 55447  
Tel: (484) 991-0220  
Toll Free: (800) 633-3080  
Fax: (763) 210-3868

Mar Cor Purification  
3250 Harvester Road - Unit 6  
Burlington, ON L7N 3W9  
Tel: (905) 639-7025  
Toll Free: (800) 268-5035  
Fax: (905) 639-0425

Mar Cor Purification  
Sourethweg 11  
6422 PC Heerlen  
The Netherlands  
Tel: (+31) 45 5471 471  
Fax: (+31) 45 5429 695

Mar Cor Purification  
1A International  
Business Park, #05-01  
Singapore 609933  
Tel: (+65) 6227 9698  
Fax: (+65) 6225 6848